

FUNDAMENTAL EDUCATION

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EDITORIAL:

COMPULSORY EDUCATION AND PEACE

EDUCATORS in Europe and North America are inclined to assume that the problem of compulsory education is already solved. So far as most of them are concerned, compulsory education was a job done in the 19th century. There might still be here and there a need for perfecting techniques of controlling attendance, of taking care of the post-war rising birth rate, or of providing facilities for the very small moving population, such as the children of families living in boat-houses.

The fact remains that the main task has been accomplished and they can now turn to the further question of raising the school-leaving age and the problems arising out of it.

The rest of the world is not so favourably situated. Somewhere between 55 per cent and 60 per cent of the population of the world is still illiterate. This does not mean that the remaining 40 per cent or 45 per cent of literates have had adequate primary education. Only a certain proportion of them have had six to eight years of schooling. The others may have frequented schools for shorter periods, often for no more than one year. The truth is that the countries where compulsory school attendance reaches nearly 100 per cent of the children of school age are still in the minority. As far as I can estimate, this does not probably exceed one-third of the population of the world. For the remaining two-thirds, educational facilities are far from adequate, and while a certain proportion of their children of school-age go to school and may even stay as long as six or eight years, or even attend university, the majority of their children are still out of school and are growing up to be illiterates. A South American authority, for example, estimates that 19,000,000 children of Latin America still remain out of school. It is impossible to give any estimates of children in a similar position in the countries of Asia (which has half the population of the world), of Africa and even of Southern Europe itself.

This is a dangerous situation. It has been said that the so-called advanced countries are the guardians of modern civilization. If so, then civilization is being guarded by a minority which is no more than one-third of the human race. We need not dwell too much for the present upon the fact that this minority is divided upon itself, that its members are at cross purposes with one another and that their conflicting interests and ideologies are a direct threat to civilization. We need only say, and superficially, that so long as civilization is guarded by a divided minority and so long as the majority still remains illiterate, then civilization is in danger. One need not be unduly

pessimistic about this—nor is the present writer—but one cannot escape the fact that no truly human world civilization can be created while two-thirds of the population of the world is ignorant and much of it living under conditions of misery and disease.

This fact is not being sufficiently considered as a factor in the present world chaos. There are even sceptics who would point out that it is the educated countries which at present are the main cause of the world's troubles. This is partly true, but the implication that education has brought about world unrest is not necessarily true. There are other factors involved—the rise of nationalism, the difficulty of mutual understanding on account of language barriers, the exploitation of one section of humanity by another, concentration of wealth in certain classes and countries—all these, along with many other factors contribute to the chaos. One charge against education, however, seems to be true. It is that throughout the 19th and particularly in the 20th century, education became the instrument of nationalist propaganda, sometimes of narrow patriotism, and has even been utilized to preach hatred of other nations and races. The mere extension of education will not bring peace. Education must be orientated towards peace, but in order to do that one must create in one form or another, adequate facilities for education. Hence, the preservation of civilization and of peace require that every child all over the world must be put in school.

Compulsory education has, therefore, a contribution to make to peace. Rightly conceived, it is one of the most effective instruments for raising the standard of living of men, for it must be confessed that just as there can be no peace so long as half the world is educated and the other half not, so also there can be no peace so long as half the world enjoys a good, or at least, a fair standard of living, while the other half lives under sub-standard conditions.

Let not, therefore, the educators of Europe and North America say that compulsory education for the under-developed countries is not their problem. It is of direct concern to them. Purely on a material basis, it will increase the markets for the manufactured products of the West. It will also bring about, as it has done in the West, greater social justice, and thus ease the tension which is one of the underlying reasons for the explosive condition of the world at the present time. In instituting their systems of compulsory education, the under-developed countries will need technical and perhaps material help.

The task ahead is the development of compulsory education programmes for the remaining two-thirds of the children of the world who are threatened with growing up into illiterate adults. This will require concerted efforts on a national and international scale. It is a long-term job which may take two, three or more generations. This need not dishearten us, for it must be remembered that although the first laws on compulsory education were passed in some parts of Germany in the middle of the 17th century, it was not until the middle of the 19th century that compulsory education became a reality in that country. It took, on the average, about 100 years for most of the countries of Western Europe to finally enforce a compulsory education scheme. Before that could be done, it was necessary for national economies to become sufficiently developed and for the countries to be sufficiently industrialized in order to be able to bear the cost of compulsory education. The social structure had to change from the feudal into 19th century society. Political democracy had to become more widespread, and disputes with the Church over the control of education had to be more or less satisfactorily settled.

The countries of Asia, Africa and Latin America seem to be destined to follow a similar course before they can successfully establish their systems of compulsory education. In many of these countries legislation already exists,

some of which is very highly developed. This seems to be the case, especially, in many countries of Latin America. Legislation alone, however, will not solve the problem. Witness the fact that in some of these countries compulsory education laws have existed for the last 100 years, and yet hardly more than 50 per cent or 60 per cent of the children of school age are now in school. Moreover, a large proportion of children do not stay long enough at school to complete the compulsory school course. Many of them drop out after one to four years. More than half of them seem to drop out by the time they finish the third year.

It is evident that there are other factors involved which are not being sufficiently attended to. Compulsory education, even for six years (let alone eight years) is an expensive affair. It requires a certain standard of economic development. The average income of the farmer and of the worker must rise. National economy must be so developed as to make possible taxation and the revenue necessary to maintain adequate public schools. It is to be noted that in most of the countries of Europe and North America, a fairly high degree of industrialization was attained, leading to a large increase in the national income, before compulsory education became possible. There are, of course, notable exceptions, such as Denmark and Australia, which have a highly developed agricultural economy coupled with some industrialization. It seems to be safe to conclude that compulsory education is impossible under an economy of subsistence farming.

In many countries there are still large tribal populations, some of which are nomadic. In others, there is a feudal kind of social and economic organization. A certain level of what can be called social maturity seems to be required. The land system may be at fault and may keep the farmers in such poverty as to make compulsory education impossible under the circumstances. Political instability may in some countries hinder the planning and execution of compulsory education programmes. Local political organization may be so weak as not to be able to contribute properly to the financing and execution of such programmes. Again, language difficulties may stand in the way. In some cases vernacular languages are still unwritten and the problem must be faced either of writing the language down or following the doubtful course of educating the masses of the people in a language not their own.

These and other intricate problems therefore need to be studied and solved. The question is thus much more complicated than appears at first sight. It is a task set not only for expert educators, but also expert economists, sociologists and experienced statesmen. It is in order to fix world attention upon this problem that Unesco has undertaken a long-term programme in favour of compulsory education ranging over a number of years. The preparatory stages for this programme are already under way and it is intended to devote the 14th conference on Public Education (to be called jointly by Unesco and the International Bureau of Education in Geneva, July 12-21), very largely to a general discussion of the problems of compulsory education.

It is to be hoped that Ministries of Education will be represented at this conference by some of their most highly placed and highly qualified personnel, who are in a position to influence policy in their countries, so that deliberations will go deep into the problem, will be based on realism and experience and possibly lead to some concrete national and international action. The more advanced countries will supply the precious experience which they have acquired in this field in the last 100 years and at the same time get a glimpse of the problems with which the other countries are struggling. The less advanced countries will perhaps get a better insight into their problem and the various

factors affecting it, as well as learn how other countries have gone or are going about solving their problem.

Unesco is undertaking a two-fold crusade in popular education. It is trying to create a world movement in fundamental education which will result in the improvement of the standard of living of the illiterate and destitute masses of the world. At the same time it is attempting to awaken world opinion in favour of compulsory education which will open for children opportunities for a better life in a better world.

MATTA AKRAWI

THE TWELVE-YEAR SCHOOL IN THE UNITED STATES INDIAN SERVICE

by WILLARD W. BEATTY

In a growing educational system the optimum size of the primary school and its articulation with the secondary school are matters of constant concern. The experiment in the U.S.A. described here combines both elements in a single school to meet needs which are commonly found in fundamental education areas.

TWELVE-YEAR schools in the United States are no novelty, though they are not particularly numerous. The twelve-year school is well suited to sparsely settled rural communities; better facilities can be provided for relatively small numbers of children with less money when children from approximately six to 18 are brought together in one school plant. It is obvious that many common-sense economies in construction and operation result when libraries, gymnasiums, cafeterias and other facilities are built on one site. Experience has proved that these facilities, as well as classrooms, laboratories and shops, when assembled under one roof, can satisfactorily serve the needs of an entire group of children in grades 1 through 12.

Congested urban areas have sometimes found that the twelve-year school meets their needs. Where building sites are scarce and land values exceedingly high, as in a city, there is a great advantage in the fact that a single adequate site for a twelve-year school requires less land than several inadequate sites for separate elementary and high school units.

The twelve-year school, as a matter of fact, is not as unique as it sounds. Many schools are operated largely as a twelve-year unit, but fail to be recognized as such. This is due in part to the necessity the administrators are under to organize them on paper and to report them according to some established administrative pattern such as the usual 8:4 or 6:3:3 plan.

The school in Bronxville, New York, where I was superintendent for 10 years before entering the Indian Service, was a twelve-year school. One large two-story plant housed all twelve grades. An auditorium used by all groups was at one end; a large gymnasium at the opposite end and two smaller gymnasiums at the rear were similarly used. Special rooms were set aside for elementary music, art, science and manual training. Groups in the six upper years also shared a music room, an art room, woodworking, metal and printing shops and home economics and science laboratories. One large centrally located library with reading and reference rooms served all grades. A smaller reading room was reserved for the elementary youngsters. Through the sixth grade, the home-room teacher was responsible for directing all the children's work, integrating the art, music, etc., with the project activities of the classroom. Above the sixth grade, all work was departmentalized. The elementary grades had their own principal, and the upper grades another principal. The playground area was jointly used.

There was some feeling on the part of teachers of sixth and eighth or ninth grade groups that the arrangement tended to deprive these youngsters of certain leadership opportunities which they would have had as the oldest group in the more conventional type of elementary or elementary and junior high school organization. The total pupil enrolment was about 1,600, about evenly divided above and below the sixth grade.

This school was probably the result of the New York State school district organization, where an independent district may operate both elementary and high schools. In Bronxville, the community had an area of approximately a square mile and a population of a little less than 8,000. A single centralized school plan was a natural outgrowth of the situation and, I believe, a thoroughly satisfactory one, to pupils, parents, and staff. It was our belief, though difficult to prove, that the single continuous school was more successful in its retention of pupils than are separate junior and senior high schools. During his first eight years in the twelve-year school, a child forms associations with the school as an institution. It is presumably easier for him to continue as a member of the school and group than to face problems inherent in graduating from the eighth grade and plunging into an entirely unknown high school situation. Academically, the Bronxville High School set and maintained such a standard that the Bronxville High School diploma was accepted by all eastern colleges in a state where a state or 'regents' diploma was demanded from most high schools.

The twelve-grade schools in the Indian Service appear to date from my assumption of the directorship of education in the United States Indian Service, although I was not conscious of introducing the phenomenon. For many years, the Indian Service had very few high schools. Both boarding and day schools had emphasized elementary education with a manual training or even vocational slant. In the early days, many pupils were adolescents or young men and women, who had grown up on the reservation and had not had the opportunity to go to school at the normal age. Many couldn't stay in school for 12 years, because they had reached an age when marriage and wage earning were normal.

I entered the Indian Service in 1936 when many of the old reservation boarding schools had been closed and the pupils placed on a day school basis. Every effort was being made to keep the younger children in their homes or find foster homes for them, and elementary boarding schools were limited to dependent children for whom foster homes could not be found, or whose homes were too far from day school centres to be reached by the school bus.

As the elementary children became younger, the demand for secondary education increased. In 20 years, the number of secondary schools increased from five to 33, and an additional 18 schools were extended to include the ninth or tenth grades, with the implied intention of extension through the twelfth grade, if the demand justified such a step.

The result of those trends was to establish a high school on each of the larger reservations. In fact, there was an effort to avoid inaugurating high school classes unless there was good reason to believe that an enrolment of at least 100 could be maintained in the four upper years.

Very little new construction was undertaken, but the central boarding school on the larger reservations was converted to high school use. Because of the large number of dependent elementary youngsters for whom foster home care was difficult to arrange on the reservations, there had usually been a small boarding unit left after the emphasis had been transferred to day schools. This small central school was then extended into a reservation high school by the gradual addition of grades, enrolling children from all over the reservation who had completed their elementary work in the scattered local day schools. Many of these high school children came from remote districts too far away for daily bus transportation and so they became boarders.

On several reservations the area served is limited, so that all of the children at the central school, both elementary and secondary, attend on a day basis.

I suppose that if my earlier experience in the administration of segregated

Home economics in the cottage dormitories at the Fort Sill Boarding School, Lawton, Oklahoma, is a matter of practice gained by preparing two meals a day for 25 fellow dormitory mates rather than just classroom instruction in a home economics laboratory.



elementary and secondary schools had been more extensive, I would have automatically recognized many very good reasons why unification in the Indian Service was either undesirable or impossible. Having lived with 12 grades under a single roof for 10 years, it seemed both feasible and normal to extend the practice. To begin with, there were no very strong theoretical reasons for separating the secondary and elementary schools, and there were only minor passing objections from the members of the teaching or administrative staffs at either end of the academic scale.

In several areas where it appeared that older elementary boarding schools had been abandoned too rapidly to allow for absorption of many dependent children in other types of care, small elementary units were added to plants which for many years had been devoted entirely to secondary education. No dislocation of moment occurred at any point to cause any of us to question these organizational decisions.

I had spent my lifetime in American public school administration, so I was a confirmed day school enthusiast, and had long sympathized with my friends who were boarding school masters and promised myself that I would never get into those kinds of difficulties. Suddenly in 1936, I accepted a job that placed me in charge of the largest number of elementary and secondary boarding schools under the direction of a single agency in the United States: 46 boarding schools in the United States enrolling 13,916 pupils, and two boarding schools in Alaska enrolling 180 pupils.

Many of the older Indian Service schools were originally operated in army barracks which had been abandoned by the military as the pacification of the frontier was successful and turned over to the Indian Service for school purposes. The great barren barrack's rooms with 20 or more colourless white beds, and completely lacking in closets, dressers or any privacy for a child or his personal possessions, seemed to me to epitomize the heartless institutional quality of many of these plants, which was often reflected in the demeanour of many of the dormitory employees.

My immediate predecessor, Dr. W. Carson Ryan, now with the University of North Carolina, had made a gallant attempt to correct this condition, and here and there new and more modern dormitories had been built, which provided separate rooms for from two to four pupils, with at least some closet space.

Before entering the Indian Service, I had participated in surveys of several

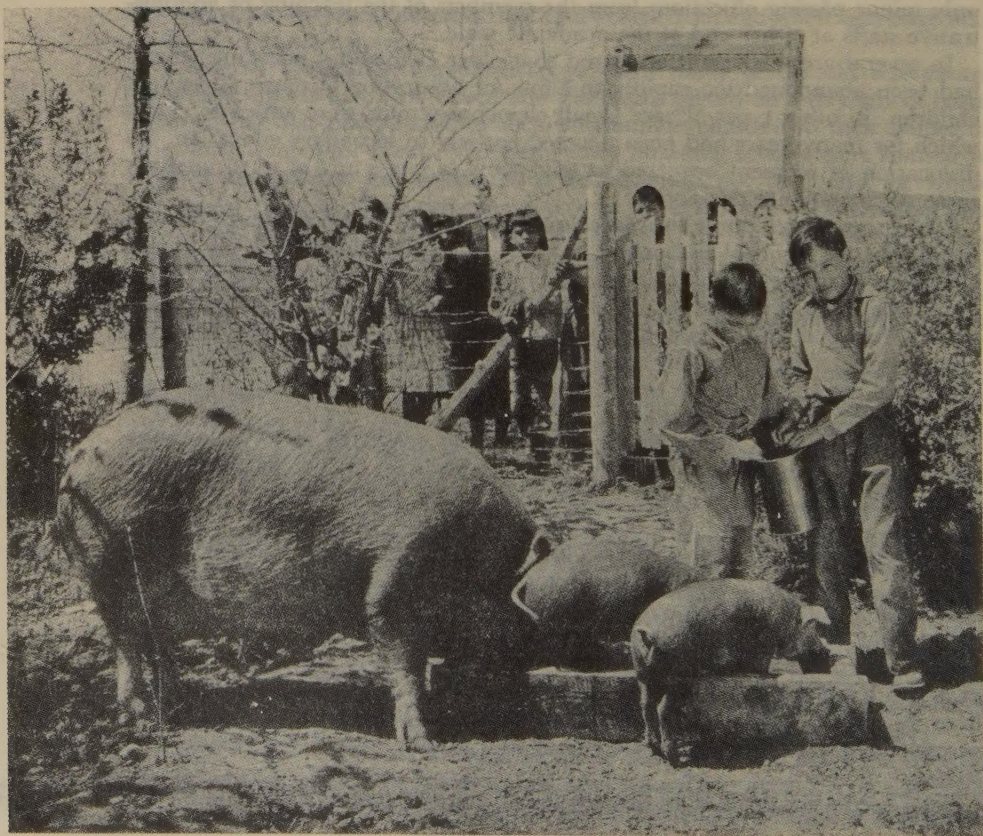
Jewish orphanages or homes and had been impressed with the superiority of the cottage type of housing where small groups of children of both sexes lived together with a supervising couple (housefather and housemother), caring for their own rooms and preparing and serving their own meals.

During the 1937 and 1938 Public Works Programme in the United States, I had the opportunity to introduce two types of cottage dormitories into the Indian Service. In the planning period, when field administrators and teachers as well as the central office staff were designing these buildings, a new concept of family integration grew up in several smaller twelve-year schools where reconstruction was undertaken.

Three of these schools located in Oklahoma had originally been elementary boarding schools, enrolling about 200 children each. Our new plans called for replacing the old dormitories and enlarging the schools to accommodate 300 pupils. Because of World War II, construction was delayed and none of the plants is as yet complete, though one now comes close to realizing the original concept.

Each cottage dormitory is planned to accommodate 20 children and at least two adults. Six bedrooms are provided, three for boys (two rooms to

Elementary children at Oglala Community High School, Pine Ridge, South Dakota, taking part in an agriculture and livestock project in connexion with their elementary classroom work.



Playroom activities in one of the cottage dormitories at the Riverside Indian School, Anadarko, Oklahoma.



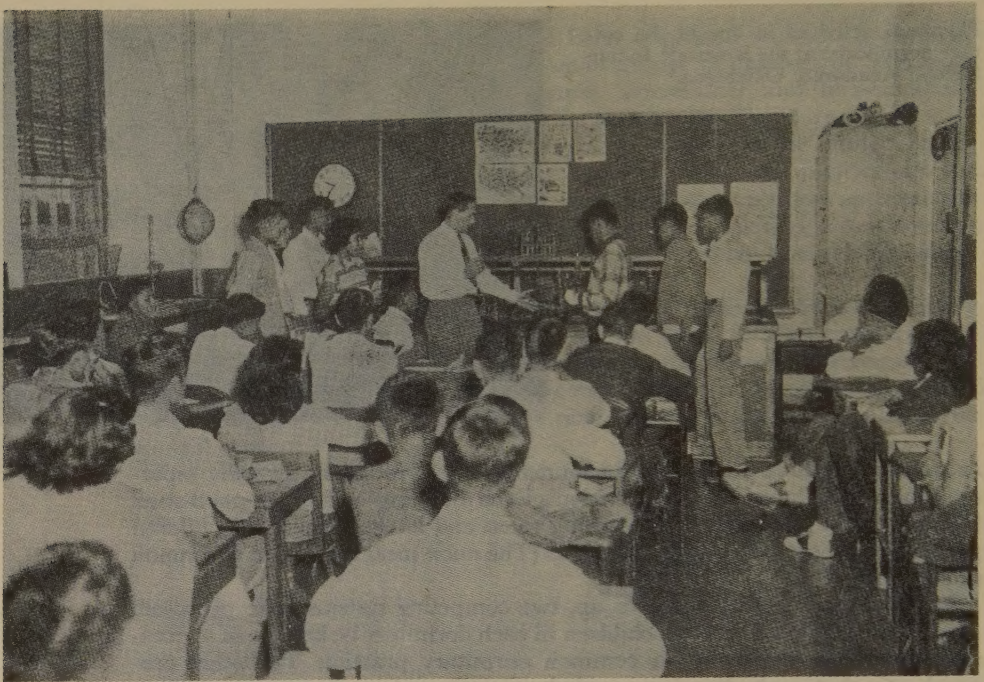
accommodate three pupils, one for four), and three for girls, carefully separated to provide 'automatic supervision'. Each building contains a good-sized living room, a playroom, and a dining room and kitchen where the children prepare and serve breakfast and dinner. (The noon meal is eaten in a common dining hall.)

While plans were being drawn up, two competing systems were proposed. It was first suggested that the children in each dormitory be kept to an approximately similar age group—a common dormitory practice. The other proposal was that each dormitory include a cross-section of age groups, from youngest to oldest, as would a typical large family.

Those who argued for the first type envisaged a 'child's world' in which all furniture and experiences and responsibilities should be planned to fit the size and age of the pupils. Some of these persons wanted to 'protect' the little children from the over-stimulation of contact with the older group. They also thought at the same time of the greater 'freedom' which would be assured the older children if the little folks weren't constantly under foot.

The proponents of the 'mixed families' argued that the world was organized that way and that age-segregation was unnatural, regardless of how convenient it might be. They also maintained that such organization offered better teaching opportunities within the dormitory home, which was one of the opportunities, and should be a major objective, of a good boarding school. Boarding schools are becoming increasingly common as a means of bringing together children from sparsely settled rural areas for educational purposes. This is particularly true at the secondary level. In this way, the advantages of wholesome group living may be added to the other advantages inherent in the programme of the twelve-year school.

The two groups were irreconcilable. As two schools not far apart were both scheduled for the newer type of dormitories, it was finally decided to organize one school (Riverside School at Anadarko, Oklahoma) in the family pattern, and the other (Ft. Sill at Lawton, Oklahoma) on the age level pattern. This has been done. So far, the rate of reconstruction at Riverside has been more rapid, so we have more cottages with family grouping than with age segregation. Whatever evaluation has been made is based on casual observation. To date, this strongly favours the family grouping. Older children have younger children sharing their rooms. Where several children from the same family attend the schools, brothers share the same room or sisters live together. A 'big brother' or 'big sister' relationship between the other children is encouraged, and has been remarkably successful.



Academic high school class at Fort Sill Indian School. Lawton, Oklahoma, doing physical science practical work.

In several of our twelve-year schools, a further experiment has been tried of minimizing departmentalization and arranging for as many classroom activities as possible to be conducted under the direction of the home-room teacher. This runs so strongly counter to the American pattern of departmentalized high school organization that it has automatically aroused resistance.

In general, while I am not prepared to argue that it is an entirely preferable approach, it has proved useful with Indian pupils who often find the adjustments to numerous teaching personalities a little difficult to make and are much happier and more productive working with one teacher to whom they are accustomed.

In conclusion, our experiences with the twelve-grade school have been wholly successful. We believe that the minimum size for such a school is about 300 pupils—smaller groups make for inefficient or unduly expensive operation.

The exposure of the younger children to the wider interests of the older groups has speeded up adjustment to newer, non-Indian ideas.

The need to be concerned with the interests of the younger children has facilitated instruction in better home living.

Although our programme was the result of adjustment to certain physical requirements, rather than to the philosophy behind planning, nothing has arisen in 15 years of operation to make us regret the programme, and I am quite convinced that the majority of our administrators would not favour complete segregation if it became possible.

ENGLISH FOR THE ILLITERATE

by F. G. FRENCH

An analysis of the problems involved in teaching literacy to adults through the medium of a second language. The methods described are embodied in the author's most recent textbook English Through Pictures.¹

DISAPPOINTMENT, deepening in the darkest hours to disillusionment, is a common experience of all who arrange courses in simple English for adult learners—at least in Africa. The difficulties, delays and frustrations of preparation, finance, organization, equipment and control are exasperating to the most patient campaigner; but the real heartbreak comes when the classes (alas, so early) show that rapid collapse of enthusiasm, shrinkage in numbers and general weakening of endeavour we know so well. They are so obviously due to our failure to persuade the would-be learners that we are giving them that they expected to get.

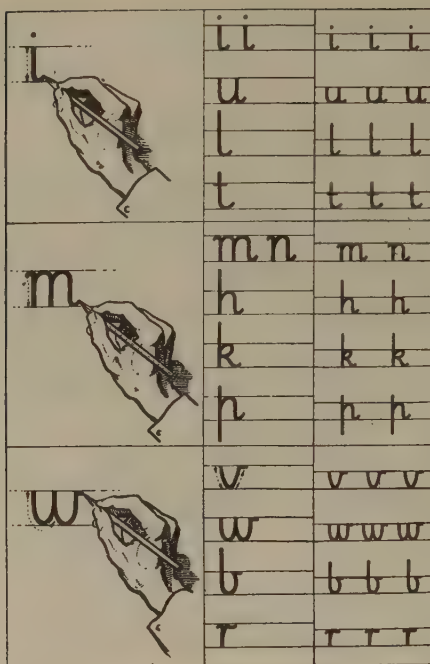
Accounts are constantly published, however, of workers who apparently do much better than ourselves; so that we feel with Emerson that 'Each man sees over his own experience a stain of error whilst that of other men looks fair and ideal'. Let us comfort ourselves that those successful ones do not—certainly do not—tell us their whole story. They too have their failures and disappointments. The same thorns plague us all.

The story repeats itself. The proposal to form a class in English raises high enthusiasm. Numbers of would-be learners, most perplexingly ill-assorted, respond readily to the opening campaign and jostle for registration. But within a depressingly short time the class has dwindled to half its size. Some of its members were merely curious and gave up very early; some found other activities more compelling or more attractive. Among the survivors enthusiasm has cooled to an anaemic hope that continued attendance may perhaps in the end produce something more or less worth while, and anyway it's nice to meet other learners as a social occasion.

The thesis of this paper and the principle which has guided the writer in his most recent work is that these disappointments and misfires are due to the reason already given: our failure to persuade the would-be learners that we are giving them *what they hoped to get* when they registered.

There are, of course, aggravating circumstances which differ from region to region. Where a class is small and reduced to a handful by the inevitable early loss of the idly curious, the instructor (often a local schoolteacher) admits children to keep up his numbers, much to the elder members' dislike. When the class is large, it proves too large for effective instruction, too large for the accommodation available and impossibly heterogeneous in its membership. In groups of average size there is often a tendency to shed the lowest stratum, the people for whom the effort is really made, and to fall into the hands of the local 'intelligentsia'—schoolteachers, church workers, clerks, who already know quite a lot of English and wish to air it. A common weakness is that the instructor is a local schoolteacher—the obvious and easiest choice; but he tends to teach in the way he is used to, as to infants. He is likely to use a

1. F. G. French, *English Through Pictures*: 3 parts. London: Oxford University Press 1950. Illustrations and quotations from the book by courtesy of the publisher.



The inner covers of *English through Pictures Part 1* show print script models. The first 13 lessons are printed entirely in this script.

child's textbook with which he is well acquainted, and to fall into a classroom manner and a personal attitude successful with small children but distasteful to adults. All this is for him a much easier procedure than to accommodate himself to a special text and to a grown-up audience.

But all these are merely adjuncts that strengthen the basic reason for breakdown: the failure of the instruction to realize the unreasonable, not to say fantastic expectations of the learners.

It is true, is it not, that the organizer of simple courses in English for adults looks at both content and method from his own standpoint as instructor-in-chief. In the light of his own considerable training, experience and reading he ponders carefully what vocabulary and what construction *should* be taught and what method (syllabic, direct oral or some 'proprietary' brand) *should* be used. He pays too little attention to the individual learner's private and personal intentions and expectations. These are certainly ill-informed, unreasonable and unrealistic; but they are vital to the issue since it is by them, and not by the organizer's intentions, that the class-member will decide whether or no continued attendance is, for him, worth while.

It is superficial to object that an adult illiterate quite ignorant of English cannot know anything of method and is incapable of formulating any idea of the English he wishes to learn. He has English-speaking acquaintances, or sons and daughters, and we may be sure that the inexperienced candidate for instruction has at least two points more or less clearly pre-judged in his mind when he registers for membership:

- (i) by the expression 'I want to learn English' he means that he wishes to be taught to speak, read and write—all three, and concurrently. It follows that step-by-step presentation, from speech through reading to writing, however sound in itself, which does not provide for all three activities *on equal terms*, will fail to satisfy;

(ii) by 'English' the candidate does not mean monosyllables or single words, or even very brief and simple answers to questions posed within narrow limits. He certainly does not mean the circumscribed English of a child's primer. He desires and most unreasonably hopes to be given quickly the mastery of a variety of complete sentence forms which will be an equipment sufficient for a wide and indeterminate field of conversation. He little knows what he is asking for, but it is no concern of his whether his objectives are reasonable or attainable.

That is what he has in mind, and the method and speed of achievement are the instructor's business. None of this is clearly formulated, of course, but there are vague hopes that something of this kind will happen, quite soon after he has joined the class. If disillusionment comes swiftly and incomprehensibly, he will throw in his hand.

Enthusiasm once cold is most difficult to rekindle. A second attempt with the same group of learners is perhaps never possible. Every start is therefore a new start and it is extremely difficult to determine beforehand how far the expectations of any group correspond to the picture just drawn. It is safest to try to cater for the most difficult case, and it is certain that if the learner is allowed to get the impression that his desired objective is always receding over the brow of an ever steepening and increasingly laborious gradient, while his efforts are constantly frustrated by a host of 'mistakes', he will succumb; and the organizer will have to register another disappointment.

The problem is made all the more frustrating because the organizer is, in practice, almost completely in the hands of two other partners over whom he has too little control: the textbook writer and the local instructor. Something has already been said of the choice of schoolteachers as instructors. Those objections may not be insurmountable in some regions especially if, as is generally agreed, a short training course (perhaps of only two or three days) can be arranged for all class leaders. In that case the organizer's interest centres even more intensely upon the textbook.

If there is any measure of truth in the diagnosis made so far in this paper, the requirements which the text must satisfy may be listed as follows; but it must be noted that they impose difficult and cumulative restrictions upon the textbook writer:

The overriding principle is the imperative requirement that confidence in progress shall be maintained at a high level by ensuring that at the end of each session, however brief, the learner shall feel that he has made demonstrable progress in that he has learned to speak, to read and to write (all three) a new construction of wide and easy application.

Each of the three activities—speech, reading and writing—presents its own group of difficulties, and though these are quite unrelated they must nevertheless be dealt with concurrently and in such a way as to secure and not imperil confidence. An item of learning which is most desirable under one activity, say speech, may have to be rejected because it raises too early a difficulty in another activity, reading or writing.

In selecting and grading items for practice in speech it has to be borne in mind that apparatus will be at a minimum, but speech will be hesitant unless there is an instantaneous connexion between word and concept without the intervention of translation. To ensure that the concept is actually and realistically presented, in the absence of apparatus and taking account of low-grade instruction, pictures provide the easiest and safest material in a form which is permanent and permits of easy and ever ready revision and practice. The prime function of the instructor can, at need, then be limited to demonstrating the sound of the English word conveying the pictured

concept. This is an advantage to the organizer but it presents its own problems to the textbook writer.

As reading is primarily an act of recognition, the words of the vocabulary selected to satisfy the preceding requirements must also be such as will be easy to recognize in print or script. For example, a word with obvious tails, like *hat*, will be presented earlier than a word without tails, such as *can*. Furthermore, as reading involves the recognition of phrases as group units, collocations of words shorter than sentences but meaningful in themselves must be taught from the beginning.

The major difficulties met with in writing, in the first stages, are the fine muscular movements of pencil control, which may be a severe handicap to heavy-handed agriculturists and manual workers. The vocabulary must therefore again be reviewed and regrouped so that while satisfying all the preceding requirements it reduces to a minimum the difficulties presented by involved lettering. Thus the first lessons must as far as possible be confined to words composed of letters drawn with only simple up and down strokes: *i u l t*, etc.

Since the learner feels most encouraged when he masters a complete sentence-pattern of wide application, structural words assume superlative importance: *and*, *or*, *this*, *what*, *of*, etc. Subject to all the foregoing, these must be introduced from the beginning, even though it is agreed that they are the most difficult words to teach.

Generally, since the grade of instructors will range from the efficient to the most perverse, the text must be self-explanatory and its manipulation as mechanical as possible.

The construction of a course within the framework of those restrictions (imposed, be it noted, by the learners themselves) calls for a most careful reconsideration of the material, vocabulary and sentence-patterns, which must be included and of the order of its presentation. That material is generally agreed among educationists; we are concerned here only with its grading and manipulation.

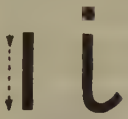
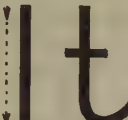
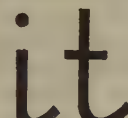
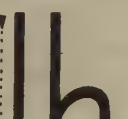

The point urged is that in order to achieve success, which means in essence the maintenance of confidence, the multifarious and unrelated difficulties put in the path of the learners by the three activities of speaking, reading and writing must be taken account of together and concurrently. Thus, in the earliest lessons, if a word is selected for inclusion on the grounds of high frequency value, it must be rejected if it is difficult to recognize on sight (*on* and *no*); and again if it requires difficult finger movements in the writing of it (*which* or *woman*). In fact, the prime requirements of the words constituting the vocabulary for an introductory course are that they must be acceptable on all the grounds laid down by the general principles of language teaching and, in addition, they must be demonstrable in pictures, easy to pronounce, easily recognized at sight, easy to write, and shall carry a high value as sentence builders.

An example may illustrate. The first personal pronoun *I* and the ubiquitous *it* are structural words ranking high in all 'selected' vocabularies and they are of obvious value as sentence builders. Both are written with simple down strokes, and the down-stroke group of letters also includes the form *h*. It will be encouragingly easy for the learner in his first lesson to learn to write *i*, *t* and *h*; and to speak, read and write the complete sentence *I hit it* which he can identify in a picture and promptly apply by striking any object and proudly making the announcement *I hit it*.

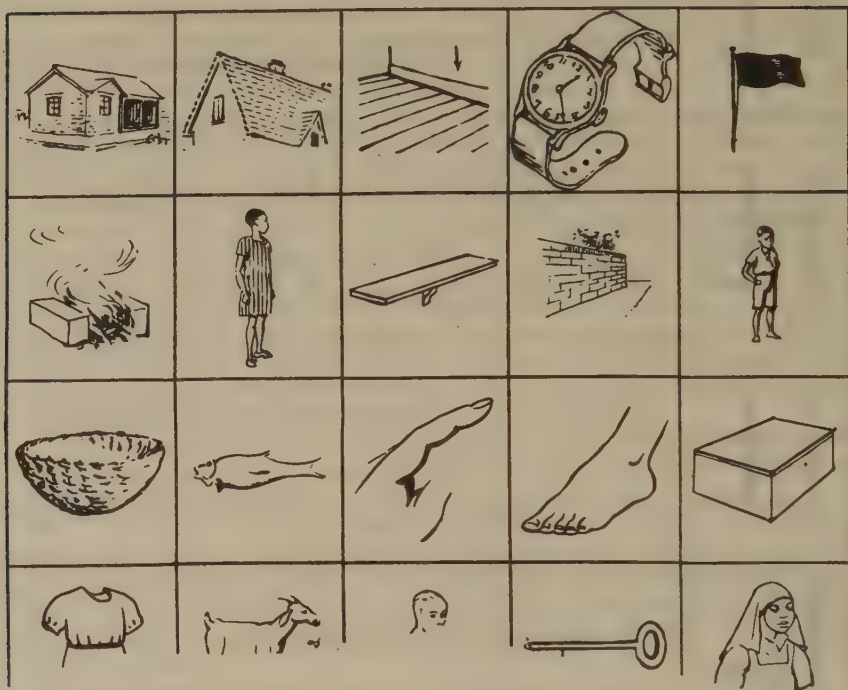
That principle can be pursued throughout an introductory course. The English letters fall into six groups: the down-stroke *i u l t*; the right-handed

LESSON ONE

Copy in your own writing-book :—

	<p>i i i i i i i i i i i i i i i i</p>
	<p>t t t t t t t t t t t t t t t t</p>
	<p>it it it</p> <p>it it it</p>
	<p>h h h h h h h</p> <p>h h h h h h h</p>
	<p>hit hit hit hit hit hit</p> <p>hit it hit it hit it</p> <p>I hit it I hit it I hit it</p>

1. Touch each picture and say : *this is a . . .*
2. Point to (do not touch) each picture and say : *that is a . . .*
3. Ask the question for Yes : *is this a . . . ?* Yes.
4. Ask and answer the question for each picture : *what is this ?*



The latter part of lesson 18 in *English through Pictures*, showing the language drills.

curve with or without stroke *n m h k p*; the left-handed curve *o e c*; and with stroke addition *a d g q*; the up-curve *v w b r*; and the mixed strokes *s f j y x z*. These groups should not and, in fact, cannot be too rigidly adhered to, but they provide a basis for the rearrangement of the necessary vocabulary. Thus by adding the simple circle to the down-stroke, and the double *s* curve, the learner is provided with an opening vocabulary which is easy to speak, easy to write and easy to recognize by printed shape: *I it hit a hat that is his* and so immediately he possesses a quite considerable group of sentences: *This is his hat*—etc.

In the next lesson the simple right-handed curve *n m* can be added and we get the most useful *in on* and *man* and the sentence-patterns enlarged to such forms as: *That man has a hat*.

The same approach leads naturally to a recognition of the importance of the syllable or letter group, so that when the learner is tackling the right-handed curve with down-stroke (*h k*) the recognizable groups *ook ick ack* and *ock* fall into place, giving rise to sentences such as: *Look at that clock (lock, stick, sack, book)*; *Is this a book?* *Is that a clock?* And so on, all picturable.¹

¹ The complete scheme is set out in *English Through Pictures*.

There remains the question of method and with it that of instructors and instructor training.

Two possibilities are open to the organizer: he may assume that most of his class leaders will be teachers with some experience in the direct oral (or some other) method of teaching English, perhaps with the advantage of some professional training, so that all that will be required will be the distribution of primers and the usual procedure of organization and supervision. Or he may consider that the tuition of adult illiterates demands a distinctive approach, and for that reason all his class leaders should undergo a preliminary course of training.

The first alternative, most organizers would agree, is too optimistic for safety. It is far from certain that the professional teacher, generally experienced only with children of tender age, is the best class leader for a group of adult beginners. In many regions only a proportion of those available will be professionally trained, and none will have had training in adult work. There are other risks which vary from case to case. The second alternative can rarely be implemented by anything but an extremely short course, lasting at most only a few days. And even so much is a heavy drain on the finances usually available. But the advantages and benefits accruing from a preliminary course, however short, have been proved many times, and it will be generally agreed that some form of collective discussion and explanation is essential to success. But, because the time for it will necessarily be so short, it cannot be hoped that so brief a period of instruction will suffice, either to prepare the school teacher for an approach which is new to him or to produce competent instructors from a medley of good-hearted and enthusiastic traders, clerks, artisans and church workers.

The solution thus falls yet again upon the textbook. In order that it may be an effective instrument in the hands of the class leaders available, its manipulation must be easy, self-evident and almost mechanical. The 'directions for use' will be as brief and as precise as those on a bottle of physic. With such a textbook a very short training course for class leaders would suffice. But the ideal text will never be forthcoming.

In the meantime we might have a greater measure of success if we gather patience to consider and, in the ways here suggested, try to meet the delightfully simple but exasperatingly unreasonable ideas of our clients.

Alderney, Channel Islands
January 1951.

BUILDING A BRIDGE TO LITERACY

by PETER STOLEE

A detailed study by the author of a literacy primer in the Malagasy language. Each part of the preparatory work is described in full, so as to provide material for a comparative study of literacy-teaching methods.

WHEN I first came to the mission field some 25 years ago I became concerned about the adult Malagasy's difficulty in learning to read. Later on I saw that Malagasy children also spent an unreasonably long time in learning to read. While home on furlough I studied better methods of reading instruction, and in 1931-1932 made a word count to establish the relative frequencies of the words used in simple print. But this did not seem to lead anywhere: it merely showed that a small number of very short words have a very high frequency while the rest of the words tend to be long. Teaching methods suitable for English were largely inapplicable in Malagasy, where the long words called for an emphasis on phonetics. But a great many Malagasy pupils never seemed to get past the mere sounding of the letters and syllables. How were they to be helped? The best that could be thought of was to make an alphabet book of the type often given to quite young American children, an 'A stands for Apple, B stands for Ball' sort of picture book.

We had just about completed the search for suitable words for our picture book when we happened to read an article telling of the adult literacy work of Dr. Frank C. Laubach. We sent for his book, *Toward a Literate World*, and found that the Philippine language in which he first worked was fairly closely related to the Malagasy.¹ It was comparatively easy to apply his methods and soon we were using the key words we had gathered for the alphabet picture book in hectographed trial lessons. Since we were fully as concerned about the children as the adults, we decided to use the two methods described in Laubach's book and some others besides. It would take a book to tell of all the false starts made, so in this article only the forms finally retained are given. *The various features of the writer's new Malagasy primer are set forth using the analogy of a bridge.* It is hoped that this will make it easier for the reader to understand the purpose of each feature.

1. *The Literacy Situation.* In the early days of missionary work great efforts were made to spread literacy and the results were impressive. The missionaries who spent so much effort upon the translation of the Bible and other literature were naturally most keen on teaching people to read. But later there came a slackening in the emphasis placed upon literacy work, which was then relegated entirely to the primary school teacher and the lowly catechist. Therefore, though printed Malagasy has a simple orthography which is easy to learn, literacy has not become as general as one would expect, even within the churches and after 125 years of mission work. Here are some of the reasons for this situation: (1) The primary school teachers have been taught English, and later, French pedagogical methods, and these are not particularly

1. It is taken for granted that readers interested in adult literacy have some familiarity with Dr. Laubach's work. It would be well for those who are engaged in literacy work to read at least one of his books: *Toward a Literate World*, *India Shall Be Literate* and *Teaching the World to Read*, and not merely the popularized accounts of his campaigns.

suitable for the teaching of Malagasy reading.¹ (2) The teaching of reading has often been shackled to the teaching of handwriting and/or to a timetable prescribing the letters to be taught each month. (3) The catechists, on the other hand, have merely taught the primer as one more requirement for baptism, and the catechumen has often simply learned the primer by heart. (4) The missionary has often tended to forget to supervise and encourage the catechists and primary teachers in the teaching of reading. (5) The administration has tried to employ French as the sole medium of instruction even where the pupils do not ordinarily hear French spoken. (6) The primary books in use have been without pictures and other reading appeal, and altogether too short to teach full literacy. (7) There was (and is) an inadequate amount of literature for the newly literate. This lack of books of the right kind allows many to revert to illiteracy through lack of practice.

2. *The Language.* Welsh missionaries sent to Madagascar over 130 years ago set out to write the native language phonetically, that is, with one sign for each sound and one sound for each sign. They succeeded so well that Malagasy is one of the easiest of languages to read once the sounds of the letters are mastered.² Twenty-one of the usual western letters are used. Malagasy is related to the Malayo-Polynesian languages in which short alphabets are the rule. Once the learner has mastered the phonetic symbols of his language he can pronounce words without assistance, and he will recognize the meaning of every word he has ever spoken when he pronounces it aloud 'to hear what he is saying'. Teaching phonetically written languages can be swift, easy and delightful. But though the language is phonetic we must not begin to teach the alphabet alone, unrelated to words and meaning. An inept method can make teaching, even in these languages, a lengthy process.³

3. *The Emplacement of the Bridge.* Every language has its own genius, and the preparation of good primary reading lessons entails much more than a mere translation of lessons from another tongue. To construct a 'literacy bridge' we want to know, first of all 'where to put it'. The near end should be based on the words and interests of the illiterate we are to teach, anything else creates a tremendous handicap. Often indeed, if the language is far removed from the vernacular, as with French in Madagascar, pupils go to school for years and never learn to read so as to understand the printed page. The far end of the bridge, or what we planned to reach in our Malagasy primer, was mastery of the phonetics so that the pupils could sound out anything written in their own language, plus a fair number of 'sight' words, for more speed in reading. We decided definitely that we would never let the phonetic pronunciation

1. In the 19th century, the greater number of the missionaries were of British origin. In 1895 the French occupied the island.

2. The striking advantage of a phonetically written language is put forward in an article by John Asmead, Jr. in the January 1947 issue of *The Atlantic Monthly*, 'A Modern Language for Japan'. The author states: 'Japan is probably the only country in the world where a blind child makes faster progress in school than a normal child. The children attending the Japanese school for the blind take two years less in primary school and one less in high school to cover exactly the same curriculum studied by normal children. They require less time because they use a phonetic Braille alphabet instead of the three cumbersome alphabets and several thousand picture signs which makes learning Japanese an almost hopeless task for the Japanese masses'.

3. The reader should not let his experience with English or French reading prejudice his acceptance of the methods advocated in this paper. Reports on reading published by the IBE show that phonetically written languages are strikingly superior in the saving of pupil time and in the almost total absence of retardation due to reading difficulties. But most of these methods are only practical in languages written much more phonetically than either French or English.

of words take the place of reading for meaning. If the far end of the bridge is too 'low', we leave the pupil only half-literate and perhaps he will not know how to achieve full mastery of reading. If, on the other hand, the far bridge-head is too high we take the risk that the bridge itself will be too steep for safe crossing.

4. *The Survey of the Site—The Word Count.* We wanted the pupil to have a fair mastery in the books he would have to use early in his school course so a word count based on such material was made. The word frequency count was based on 10,000 words. Since the number counted was necessarily low, the material was divided into groups of 1,000 words each, omitting proper names and foreign words. In addition to frequency it was noted in how many groups each word occurred. Obviously a word which appears with a frequency of 20, but occurs only in one or two groups is not so important as one which also has a frequency of 20 but which is scattered through all or most of the groups.

This word count, undertaken in 1931-1932, shows that in Malagasy a very limited number of words and particles constitute a very large percentage of the total number of words used in reading matter. Thus five words: *ny* (the), *dia* (a conjunction and a particle taking the place at times of the verb 'to be'), *amin'* (with), *ary* (and), *ka* (and therefore) account for about one-fourth of all the words used. Ten words account for 33 per cent of all words used in print, and 16 words, for 40 per cent of the words in the material counted. We aimed, then, to use these words in such a way as to make them sight words as early as possible. This is the more possible since the Malagasy words of high frequency are all extremely short.

5. *The Difficulty of Long Words.* While the high frequency words mentioned above are extremely short, Malagasy words are as a rule long—some of them very long indeed. In such words there is little to distinguish them at first sight, all the more since prefixes and suffixes are widely used, making a great many words look very much alike. For words of this sort the phonetic method is logical. We planned our bridge, then, to lead as quickly as possible to sight mastery of a good many high frequency words and at the same time to a full mastery of the phonetic symbols.

6. *The Foundations of Our Bridge.* The foundations of the new primer are laid in the phonetic nature of the Malagasy language. The phonetic method of teaching reading, however, even in a phonetically written language where we only have to drill one sound for each letter, is open to some serious dangers. The principal one is that it may produce 'syllable shouters' and not readers. A person may pronounce the words of a language he does not understand, but this will hardly be reading. Sense is far more important than sound. People in different parts of England who read English may pronounce words differently but they get the same meaning. This is reading.

7. *Signs for Sense and Signs for Sound.* Before we go further into the question of method we ought to have clearly in mind that we regularly employ two different 'methods' in all our everyday reading, and that these are very dissimilar psychologically. The first is the 'sense from signs' reading involved in all the signs and symbols which men learn to recognize whether they are literate or not. Such signs may be pictorial, like some road signs, or they may be marks like those used in marking the ears of cattle, or even the ciphers. Each language usually has a different oral value for these signs, but the meanings are, as a rule, the same. The writer noted with some surprise that illiterate Malagasy often had learnt to call the ciphers from 1 to 10 in their own language, and he is inclined to think that this sort of reading is the more natural of the two mentioned. Thus a young child may discover that M is mother's letter and D is daddy's letter and J is Johnny's own letter long

months and years before he learns to read words from letters standing for sound. Some even claim that certain animals can be taught to recognize the significance of signs in a limited way. The idea of 'signs for sound' on the other hand, is much more difficult to grasp. It is said that the Egyptians mixed phonetic signs along with their hieroglyphs, and that Semites perfected the consonant signs in the peninsula of Sinai. Greeks later invented the vowels giving us the complete alphabet. It is this alphabet that makes paper 'speak'. The symbol stands for a thought. The letters say the sounds. The former are illustrated by our ciphers, the plus and minus signs etc. The letters spell out the words. It is of the utmost importance that we take full advantage of both these systems, so we get the 'oralness' of the letters without losing the 'naturalness' of the symbol signs.

8. *The Bridge Piers*. Once we are clear as to the need of bringing 'sounds into the signs and sense into the sounds' we will be ready to accept good teaching as the material in the piers of the bridge to literacy. Keeping in mind all that is involved in reading we can see that it is impractical to expect anyone to learn to read without a teacher or to learn well with a poor grade of teaching. Personally we would prefer a poor primer in the hands of a good teacher to the best of books in the hands of an indifferent and poor teacher. It is regrettable that in the past many Malagasy teachers have not appreciated the significant role they play when teach a child or an adult to read. In the new Malagasy primer the directions to the teacher are placed at the beginning of the book and elsewhere when that seemed required. These directions, given in translation below, are of the greatest importance in the writer's opinion, for it is good teaching which makes any method work. This is perhaps especially true in the phonetically written languages.

Introduction: Impress upon your pupils that the ability to read is a wonderful key which gives men the possession of the wisdom and learning recorded for all time in men's writings. The person, therefore, who cannot read is poor indeed, and he might fairly be likened to one who is blind. But persons who cannot read are apt to think that reading is very difficult to learn. In our day this is no longer the case. Assure them that it is both easy and very useful to learn to read. Then they will be able to read entertaining stories and also letters from friends far away. They will be able to read books full of knowledge for this life and for the one to come.

(It is most important that you, as a teacher, follow the directions given for they are based on the nature of this new book. For example, an axe and a saw are both used for cutting wood, but how foolish you would be to use the saw in the manner of an axe. So be sure to read and follow the directions carefully in every way.)

(1) Show your pupil how to hold his book, and how to treat it so it will last long for him. He should be taught to have clean, dry hands, and to find a safe place to keep it from the pests that destroy books.

(2) Before you begin actual teaching it is well to see whether the pupil has good eyesight (Can he see to dig out chiggers?) and whether he, if a child, is ready for learning to read. The following tests have been found useful:

(a) Can he count his fingers understandingly?

(b) Can he distinguish forms well? Can he, for example, distinguish the letters like *s* and *o* even though he does not as yet know their names or sounds?

(c) Is he interested in the stories he hears and in the pictures he sees?

(3) Always have a smiling face and a 'smiling voice' when you teach reading. This is of the utmost importance. Do not scold or make disparaging remarks, but readily show your joy at every correct response. Be sure not to ask the learner anything you are not pretty certain he can readily answer for to do so may embarrass him. Do not teach an adult in the presence of those who

already can read for he is liable to feel embarrassed, lose face, and discontinue coming for instruction.

(4) To make it clear, especially to the adult who thinks he cannot learn, that he actually does a sort of reading already, show him the tracks of animals on page 4. Explain to him that just as he can say the sounds the animals make when he sees their tracks, so he can quite easily learn the signs for the sounds men make . . . for, since men make so many sounds we evidently cannot use men's tracks for the signs of their sounds, but must use letters.

There is a picture and a story for each letter ascribing sense to its shape and sound. This makes the pupil think it normal that the *o* should sound as it does, since it is the picture of the lips saying the sound. And so for the other letters in each group. By associating the shape of the letter and its sound in this way, the pupil will quickly learn to sound the letters. Do not name the consonants, but only sound them, so the pupil will not become confused.

When you have introduced a group of letters by the cartoon-anecdotes in this way take up the key-words which follow them. Explain carefully the meaning of any which he might not know, and if he tends to name one or more differently from the printed word tell him that he is very clever to think of this, but that in this, as in his tax paper, it is not the picture, but the written name which counts. Careful work here will ensure correct pronunciation and avoid much fumbling later.

In the beginning some words are broken into syllables. Always read these syllables as syllables, and not as words. That is, *a na na*, as *a-na-na*, and not *anana*. And never read words as broken into syllables, that is *anana* as *a-na-na*. To do so will hinder the pupil from getting the meaning of the words they read.

(5) Use all gateways to the mind: eyes, ears, and touch. But above all teach the meaning, for without the meaning the rest turns into noise and funny pictures, as far as the learner goes. Do not depend upon mere repetition, but think of possible ways of showing the meaning. For the thought is like the string in the necklace which keeps its beads in beautiful order and from being scattered and lost. Do not hand your pupils loose beads, then, but beads on a string.

(6) Go as far as your pupil's interest maintains itself in each lesson. That makes him feel he is getting somewhere. Also, man's mind is like an aeroplane in that it refuses to rise off the ground until there is enough speed. This is the reason why we must not wait for the entire class to move together. If we do this the bright pupils will lose interest and become discouraged and lazy hearing again and again what they already know.

(7) To teach the pupil to depend upon himself as early as possible show him how to use the key-words and the syllable-tables. In this way he can attack the material by himself, or at least correct himself when uncertain. When he shows signs of beginning to be able to do this be sure to praise him a great deal just as parents do when a child is just beginning to walk. Do not make fun of the pupil or threaten punishment. . . . Especially do not do so with the slow or retarded pupil who may still be immature for learning. To do so is like trampling the young rice. But when the rice is ripe it is well not to let it stand so long that it is scattered and lost.

(8) Writing the script-print at the foot of each page helps the pupil learn the forms of the letters. Kinesthetic memory is added to eye and ear and tongue memories. If there is no blackboard available write the model on a piece of board or on a sisal leaf using script-print (the kind used in writing *sol-fa*) as large as the palm of the hand. Draw a line under the words, explaining that this is to show what is up and down. 'The word sits on the mat.' (line). Postpone longhand writing strictly until the pupil has mastered this book. 'Do not ask one head to carry two water-pots at once'. As soon as each pupil has mastered the letters of his name have him write it. This will make him more interested in both reading and writing.

It may be that some pupils will learn best from one set of helps and be rather confused about the others. If so it is well to remember that you are teaching a person, not a primer . . . that you are teaching reading, not a set

of methods. So let the pupils go on as fast and as far as they can manage the sounds and works even if they have not completed, say, the syllable tables and the script writing. Later on these parts may become a good review for them.

(9) It is well to let the more mature pupil teach someone else what he has just learnt for this sets the matter more firmly in his mind than anything else, and it also gives confidence and awakens more interest in what is to come. This teaching should be done in front of you at first, but if any mistakes are made, do not correct them while others are about. Tell him when you are alone with the budding teacher so he will not be hurt in his self esteem. In fact, do nothing that might embarrass your pupil . . . but treat him as the most important person you know.

(10) If your pupils have a dialect far removed from the Ambaniandro you must take extra pains to explain the words they do not know. It might be well if you supplement the reading lessons with words and sentences using locally known terms. You can write them within the limit of the letters learnt to each point. (The writer would be most thankful if you would send such supplementary lessons to him, and he would consider using them as the basis for supplementary readers for the dialect areas or for an entirely separate dialect edition of the primer.)

(11) When the pupil has completed the lessons to the end of the book he should return to the beginning and read the introduction and the directions to the teacher. This will give him more practice and also remind him of how he was taught the shapes and sounds of the letters, etc. Then he too, it is hoped, will be anxious to teach those who have had no opportunity to learn to read. As you help him write the names asked for on the last page, his own, his father's and mother's and yours, as his teacher, show him the blanks where he may write the names of those who later learn from him.

(12) Do not neglect to get the newly literate simple written books he will like to read and to encourage him to get books listed on page 46 for his own. This will help enjoy his newly won power, and also act as a stimulus for those who cannot read.

To sum up: The piers or pillars of the bridge are made up of good teaching. The following may be considered the foundation stones in the piers:

A spirit of Helpfulness, Thoughtfulness and Respect
giving Encouragement, Enthusiasm and Inspiration
through Explanation, Illustration and Simplification
well cemented together by Fun, Laughter and Praise,
to give the pupil

(1) Interest, (2) Understanding, (3) Self-reliance and (4) Zeal to help others.

9. *The Spans of the Bridge Dividing the Material.* In teaching adults a phonetically written language the practice is often to take the entire alphabet before going on to the reading of sentences. In the new Malagasy primer this is not done but the more frequent letters are taught first so that meaningful sentences and stories are the rule from the very beginning. This means that the learner who has mastered only six letters can read a continuous story, and that, with three more, he can read of everyday things that young people like to do. This shows him that reading is not such a complicated matter after all and he is given courage to go on to the next set of letters, or the next span of the bridge. Nothing succeeds like success, and so comparatively few give up, but are led on step by step into full mastery.

We must develop in the pupil the ability, not merely to pronounce the words, but to understand them, and to understand them as soon as he can pronounce them. The remedy for the weakness often apparent in phonetic teaching of reading is not less phonetics, for that would be like cutting the

good leg shorter, but to strengthen the weak leg of meaning. This is the great reason for introducing meaningful reading right from the start.

But how can we have meaningful material when the pupil doesn't know even the alphabet? The simplest way to have a pupil read with only a few letters is to count the letters in ordinary print, and to introduce the letters with high frequency first. Lines of print were selected from Malagasy books and magazines and the relative frequencies established. The *a* was found to occur between 23 per cent and 24 per cent of the time, and the vowels *a e o i* and *y* 51 per cent of the time. The *n* occurs nearly 14 per cent of the time. The following graph shows the relative frequencies of the groups of letters as they are introduced in the new primer. They are the 'spans' of the bridge:

a, e, o, i, y and n: *****				
	*****			64%
t, r, h	: *****	15%	Cumulative:	79%
m, s, k, z	: *****	11%	»	91%
d, l, f, v	: *****	7%	»	98%
b, p, j, g	: **	2%	»	100%

We also made syllable and phonogram counts, but these did not figure in the final arrangement of the primer.

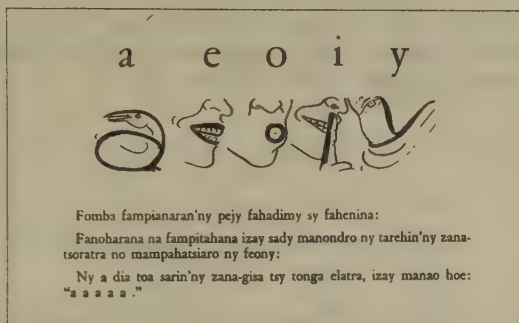
10. *The Beams of the Bridge.* We have taken up the location, approaches, foundation, piers and spans of the bridge. Now we want to show what forms the beams of the bridge, that is, what really carries the non-reader from illiteracy to full reading ability. We have two main truss-beams: I. Cartoon-Anecdotes, and II. Picture Key-Words; and two smaller beams: I. Key-Syllable Tables, and II. Script Print Writing.

Someone will ask why we have used several methods. We felt that using one method was like throwing a log across a stream, and then calling it a bridge. The courageous and strong would no doubt get over, but there would always be many who would not dare, or if they tried to cross, would fall off the log. But when we use several methods or beams we have to be careful to have them lie on the same level, close together and parallel. Otherwise they will be of little service. In the Malagasy primer each of the methods is adjusted to the frequencies of the letter groups. Since the groups of high frequencies come first and give a large choice of words, it is comparatively easy to bring the different methods into harmony, that is, to have them deal with the same letters and words. The four beams mentioned above are all organized into a composite whole, with the letters in the same order and reinforcing each other.

The vowels are taken first for several reasons. (1) They are so numerous in Malagasy (51 per cent), and then (2) some words in common use are made up of vowels only, but no words are possible without vowels; (3) the names of vowels are the same as their sounds, and this simplifies learning them; (4) with the vowels and the *n* it is possible to write a great deal of interest, so that the pupil can actually read with only six letters. This, as already indicated, gives him a great sense of achievement.

11. *The First Main Truss-Beam—The Cartoon-Anecdotes.* Teachers have always tried to make it easier for their pupils to remember what they teach, and also the shapes and the sounds of letters. They have attempted to form associations with familiar things reminding the learner of shape and sound for each character. Over three hundred years ago Johannes Comenius did just this in his *Orbis Pictus*. The cartoon and the story about each letter helps

the learner to master the letters in the shortest possible time. Here are the Cartoon-Anecdotes for each span of the bridge or group of letters as introduced in the Malagasy primer:



Prefactory illustrations for vowels (much reduced).

I. *The Vowels and the n.* The a is like the picture of a gosling whose wings are still small, and which says: 'a,a,a,a,' (a=ah).

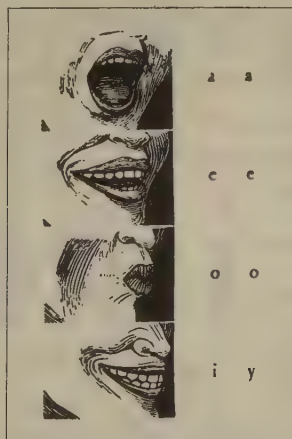
The e is like my mouth when I turn to the left and say: 'e,e,e,e,' (e=eh) (*Ery* and *e* mean 'yes').

The o is like the lips saying its sound: 'o,o,o,' (o as in *too*).

The i is the picture of the index finger pointing to the nostril and saying: i,i,i, (i=ee). The nostril always shows big when we say i.

The y has the same sound as the i, but it has the shawl covering the nose as you see in the picture.

The n is the upper tooth against which the tip of the tongue is pressed, saying: 'n n n n'.



Further illustrations for vowels.

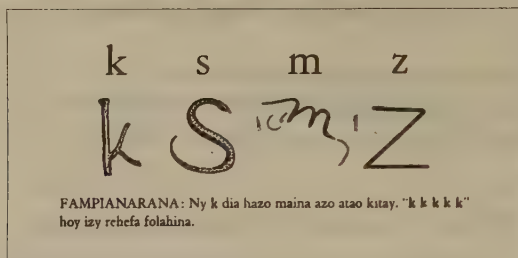
Since the vowels are used such a great deal in Malagasy they were also given a set of pictures showing the position of the mouth for each. No one who

has seen a pupil try to remember the letters just taught him will doubt the need of this extra beam for these first and so important letters.

II. *The t, r, and h.* The t is like the handle (*taho*) of an umbrella, and its sound like the drops of water striking it: 'tttt' . . .

The r is like the nose of the purring cat, which says: 'rrrrr' . . .

The h is a chicken drumstick with some meat on it. The dog comes running and pants expectantly: 'hhhhh hhhhh hhhhh . . .'



Introducing group III letters (p. 18).

III. *The k, s, m and z.* The k is the picture of a dry tree good for kindling. It says: 'kkk kkk' when you break it.

The ss is the slithering of the snake through the grass, saying: 'ssssssss ssssss'.

The m is the picture of lips (*molotra*) tasting (*mandre*) sweets (*mamy*). They say: 'mmmm m mamy'.

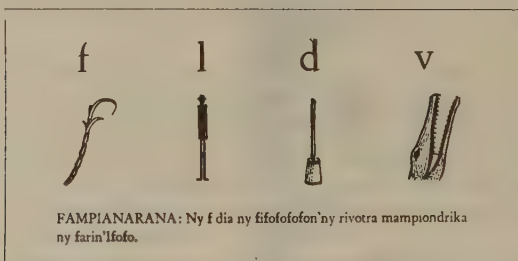
The z has many corners (*zoro*) like the cut reed (*zozoro*).

IV. *The f, l, d and v.* The f is the blowing (fifofofoto) of the wind through Ifofo's sugar cane (*fary*), saying: 'ffffffffffff'.

The l is a long (*lava*) man (*lehilahy*) stretching himself.

The d is the road stamper (*dama*) out on the road, saying: 'dddddd'.

The v on the other hand is a crocodile (*voay*) open mouthed (*vaky vava*).

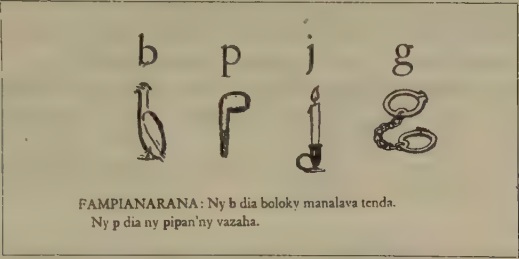


Introducing group IV letters (p. 24).

V. *The b, p, j and g.* The b is a parrot (*boliky*) stretching his neck.

The p is the white man's pipe (*pipa*).

The j is the candlestick (*jiro labojy*) burning. The dot is the flame above it. The g is hand-cuffs (*gadra*) for the murderer.



Introducing group V letters (p. 30).

VI. *Dots, sticks, numbers, and names of ciphers, and the ‘Song of the Numbers’.*

(It is well to have such cartoon-anecdotes tried out over as large an area and by as many teachers and others as possible before putting them into print. Token prizes offered to normal school students for the best illustrations proved effective in securing a good many examples from which to make the final selection.) These cartoons and stories appeal to the imagination through that which is familiar and funny applied in a clever way. They greatly shorten the time needed to learn the letters, and stress their sounds rather than their names.

Fianara-manisa			
• 1 1	isa	Isa ny hisatra,	
: 2 2	roa	Roa ny oron-dambo,	
.. 3 3	telo	Telo ny tenina,	
:: 4 4	efatra	Efatra ny fatsy,	
× 5 5	diny	Dimy ny dima,	
:: 6 6	enina	Enina ny hena,	
× 7 7	fito	Fito ny fianana,	
:: 8 8	valo	Valo ny valala,	
:: 9 9	sivy	Sivy ny siny,	
:: 10 10	folo	Folo ny fony.	
Soratra: 1 2 3 4 5 6 7 8 9 10			

Page 34 of the Primer (reduced).

12. *The Second Main Truss-Beam—The Picture Key-words.* The key-words with their pictures form the second set of main beams for each span of the bridge. In the set of words selected for the vowels it was found possible to use only

vowels and the one consonant, *n*. And in the case of the consonants the key-words are arranged so that only the initial letter is new each time, and this one letter has already been introduced through its cartoon-anecdote.

Here are the key-words for each group of letters or span of the bridge:

I. *Vowels and n. anana* (greens), *enina* (six), *ony* (river), *Ineny* (mamma).

II. *t r and h. tanana* (hand), *rano* (water), *harona* (basket).

III. *k, s, z, and m. karana* (East Indian), *satroka* (hat), *maso* (eyes), *zaza* (child).

IV. *f, l, d, and v. fary* (sugar cane), *lakana* (canoe), *damizana* (damejean), *valala* (grasshopper).

V. *b, p, j, and g. basy* (gun), *pantaloha* (trousers), *jamba* (blind man), *gadram-by* (iron fetter).

VI. *The Ciphers.*

(There is a picture of each thing, drawn by a native artist of considerable skill, and this makes it easy for the learner to recognize the thing named in each, when told by the teacher).

Key-words should be easily pictured, and not too complicated. The main problem in selecting key-words was that they had to be common to all the dialects throughout the entire island of Madagascar. Malagasy is spoken by four million people and is basically one language. But throughout the island, almost a thousand miles long, considerable differences of vocabulary and pronunciation occur. These differences are in some instances greater than those which exist among the Scandinavian or similar language groups, and only one-third use the Merina or Ambaniandro dialect which has been adopted in printed books and periodicals. Without careful attention to common meaning the key-words might have little value for some of the tribes.

In order that the key-words might have the widest currency and present the least possible occasion for misinterpretation, four or more alternate words were found for each letter. This list was then checked by asking students at the normal schools and similar institutions whether the word was used and understood in their respective home communities with the meaning given in the list. Twenty easily pictured objects, each beginning with a different letter, were thus found to have the same name throughout the entire island with almost no exception. Since the cartoon-anecdote has already partially taught the letters there is little danger that the word will offer any difficulty once taught.

(It is possible to join the cartoon-anecdote method to the key-word method, but to do so makes it a bit more difficult to adjust to a number of dialects. Take one of the last letters as introduced, *p*. The pipe or *pipa* forms a very unmistakable cartoon, but *pantaloha* has the advantage that the first syllable is in *a* and, since it is a borrowed word, it has only one form and will not be named one way in one part of the island and in a different manner in another. To join the two methods might save space and pictures, but then we do not want to save either pictures or reduce the occasions for reading meaningful material from the first).

13. *First Minor Set of Beams—Key Syllable Tables.* Since it is not desirable that the learner remains dependent for long upon key-words and pictures he is given a syllable table following each set of helps. Thus *a n a n a* is broken up into a table, thus: *a na na A*

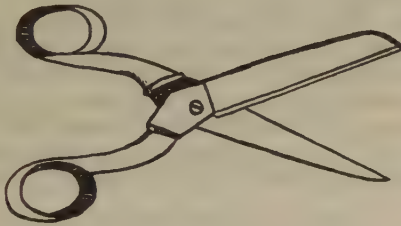
e ne ne E
o no no O
i ni ni I
y ny ny Y

To the side are found words
which can be read by
reference to the table. A
picture keeps the first line in mind.

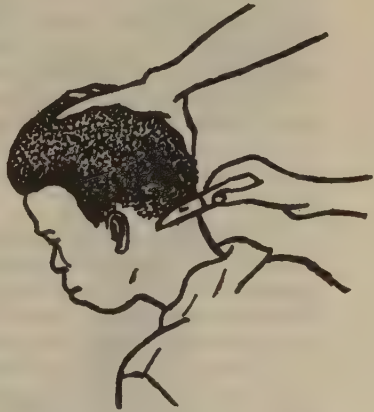
After letter group II, *t, r, and h*, the words, *haratana ranaotra* (being shaved Mr. Son-in-Law) are treated in the same way. Again the pupil is taught to

Haratana Ranaotra

ha ra ta ná	ra nao tra
he re te ne	re neo tre
ho ro to no	ro no o tro
hi ri ti ni	re nio tri
hy ry ty ny	ry ny o try
HARATANA	RANAOTRA



hety



Top of p. 14 (original size).

locate the syllables from the picture and the first words. This renders him independent of the cartoons and the key-words for he learns to depend on the letters only. He only looks to the previous pages in case of doubt. With these syllables the pupil is also encouraged to build words. A good practice is to have these syllables printed on stiff manila paper for use in word building. The number given in the relative frequency table should then be taken as a guide as to how many of each sort to make. The letter groups III, IV and V (or spans) also have syllable tables, and the key-words in them build up to a gradually expanding sentence: 'Is being shaved/ friend Imaka/ long but spotted/ and surprised is Jacob Tailor'.

These syllable tables appeal to the sense of order and to that of self-help. But at times the teacher may be too busy to take them up, and then they may

be left aside the first time through. They will do the pupils who study them much good when there is time to do them.

14. *Second Minor Set of Beams—The Script Print.* The need of this is for motor or kinesthetic learning. As already stated in the 'Directions to Teachers', only script print is taught. In later editions it is proposed to have handwritten models with the same slope as handwriting. All the letters except the *a* and the *g* are close to the printed form. These two are made to conform to the italics, and so come closer to regular handwriting. Learning the script print is of great help in the case of adults, for they will most likely not have an opportunity of learning handwriting well. Script print is very legible and is readily changed into handwriting.

15. *The Deck or Floor of the Bridge—Familiar Things.* Several features help make the new primer appear *natural* to the Malagasy, and these may be thought of as the floor of the bridge. The *illustrations* deal with the everyday things and experiences of the Malagasy village. Things Malagasy and the pictures of persons who would pass as Malagasy have been selected as far as possible, and in future editions it is hoped to make even better use of Malagasy artists than was possible up to the present. A second plank in the deck or floor is *familiarity*. All the names of persons, towns and things are those used in the native life of the island. The stories, fables, ditties and proverbs are all of local origin. The proverbs are packed with good common sense, and the folklore fables make good reading for beginners for they are generally known by old and young. This makes them appreciate being able to read. *Humour* is a considerable ingredient in the early stories of the village life and especially in the story of 'The Hen Who Couldn't Count'. The two ditties on the numbers and the one on 'Marrying Men of Different Stature' are all very amusing, as well as familiar.

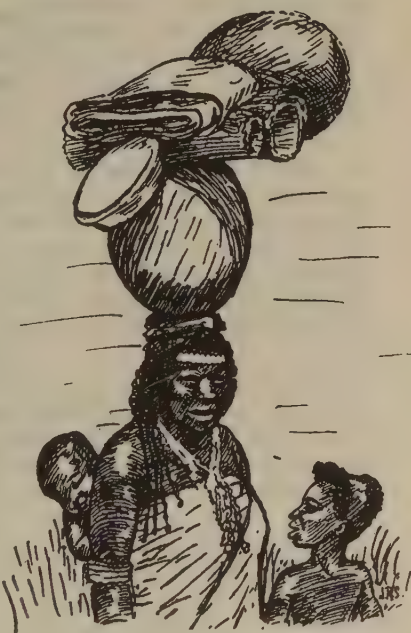
16. *The Hand-Rail of the Bridge.* The early pictures are all turned to the right, whether the ones of the animal tracks, the letter cartoons, or the key-word pictures. This is to draw the learner to read from left to right for even among the Malagasy there is some danger of reversals in reading, where the pupil tends to want to read from right to left.

17. *How the Bridge has Served.* The earlier part of the book has everywhere guides and keys so the learner soon begins to feel that he can really read a little, and that the material ahead is probably just as easy for a 'bright fellow' like him. It is probably even more interesting than what he has already learnt, judging by the pictures and the delight of others who have reached that far. Often, after a few lessons, the learner will involuntarily push the teacher aside in his excitement as he begins to realize that he is actually reading and can understand what it says. Mere vocal reproduction of sounds without the corresponding understanding of meaning does not occur. Instead of the five months minimum time, formerly allowed in the best mission schools for children to learn to read to a certain level, five weeks proved the average in one case. For the brighter adults such as illiterate soldiers two weeks sufficed to bring them to the point where they could help themselves. An average of five out of six would then be able to read any simple Malagasy book, including the Malagasy Bible, and understand it as well as if it were read to them. All this repays one amply for any work done to make the learning process clear, easy and interesting.

18. *History.* The work of making a primer conforming to the nature of the Malagasy language began with the word count in the early thirties, the search for the first key-words in 1936-1938, and the first experimental lessons, 1938. In 1940 the first edition, for adults, was printed in 2,000 copies. During the war this book was recast in the form of a wall chart. Pictures of the mouth

Raha maraina ny andro dia namehy ny kilakany (entany) izy, ka niala. Niaraka taminy koa razazalahy fa mbola kely. Koa rehefa tany an-tenatenan-tany izy mianaka dia hitan' ny zaza ny tinty anankiray, ka hoy izy, "Iny neny (reniko), no tapak' ilan-tany." Dia latsa (gaga) ny ampela (ravehivavy). "Io ve," hoy izy, no "tapak' ilan-tany?" "E," hoy ny zanany.

"Hiverina hody any amintsika isika," hoy ny reniny, "fa tsy to ny ahy." Koa rehefa niverina izy dia nanontany azy ny vadin' ny, hoe, "Nahoana hianareo no miverina izao?" Dia hoy ny ampela hoe, "Nin-day entana tsy voafehy aho, ary nataoko fa hahatsara ny fandroana maraina nefa nahamavo."



Soratra: Nitondra entana tsy voafehy aho.

saying the vowels were added in the later printings, 18,000 copies in all. In 1946 the new primer, the *Fanalahidim-Bakiteny*, for adults and children, was published, 10,000 copies being printed. Early in 1949 a call came for a reprint edition of 30,000 copies.

The new primer is used in the primary schools of the various Protestant mission fields in Madagascar and also in adult literacy work. If the reader is interested he may have a copy of the primer by writing to the author, at Fort-Dauphin, Madagascar. In return, I should be interested in receiving copies of primers in new areas or ones newly-made for old fields.

THE FUNDAMENTAL EDUCATION PROGRAMME OF UNESCO 1951

by J. B. BOWERS

THE first monograph published by the Education Clearing House in 1949 bore the title *Fundamental Education, Description and Programme*. The word 'description' was used deliberately rather than 'definition', because it was thought that an attempt to 'define' the new concept of Fundamental Education in its formative stages might impose arbitrary limits upon its healthy growth and variety. Now, however, after three years of working experience in which information has flowed into Unesco's Clearing House from field workers and educators in more than 50 countries and from widely different cultures, the scope and purpose of fundamental education have become clearer to us. At the same time it has seemed desirable to establish at least a working definition, which would be acceptable to the United Nations and its Specialized Agencies as a basis for their co-operation with Unesco. In November 1950, therefore, representatives of the Secretariats of the UN and its Specialized Agencies came together in Paris to consider a draft definition laid before them by Unesco and to work out plans for closer co-operation in projects of fundamental education and other activities related to it. The definition which was finally endorsed by this conference is reproduced on page 77 of this bulletin.

The last chapter of the monograph outlined a programme for Unesco 'to help Member States which desire aid in campaigns for fundamental education, giving priority to less developed regions and to under-privileged groups within industrialized countries'. This was the programme approved in 1948 by the General Conference at its second session in Mexico City. The task of Unesco in fundamental education remains broadly the same, but the Organization has gained new experience and developed new facilities for carrying out this task.

Perhaps the most significant of these developments, although it is outside Unesco's 'normal' programme, has been the establishment of the scheme of 'Technical Assistance for Economic Development in Under-developed Areas'. A sum of \$2,300,000 has been allotted, as Unesco's share, of the total budget of \$20,000,000 appropriated to the UN and Specialized Agencies. Fortunately there has been a growing realization among the organizers of this scheme that economic progress cannot be imposed upon illiterate people, deprived of the access to knowledge and the means to improve their skills. In consequence, it has been recognized that fundamental education has an essential part to play in laying the foundations of economic development.¹

This 'expanded programme of Technical Assistance' makes it possible for Unesco to aid Member States in using educational methods and developing educational activities for the improvement of economic conditions.

The 'normal programme' of the Organization in fundamental education with an annual budget of \$337,000 for 1951, will therefore be concentrated upon two main lines of activity: first, pioneer experiments to develop and test new educational methods and media, and second, the training of experts and field workers in their application.

These two activities have been brought together into the most important

1. A short note on the 'Relationship of Fundamental Education to Economic Development' has been prepared by the Secretariat, numbered Educ./95 and is available from Unesco.

single project of fundamental education launched by Unesco. In co-operation with the Organization of American States and the Government of Mexico, and of WHO, FAO and ILO, a regional Training and Production Centre for Latin America is now being established in the town of Patzcuaro, about 160 miles west of Mexico City. The Centre will train teams of fundamental education workers for the countries of the whole Latin American region and will produce model educational materials adapted to their special needs. These materials will be prepared in the Centre, and in neighbouring projects allocated by the Government of Mexico as experimental areas, and will be adapted closely to the needs of these local communities, since it is increasingly clear that educational materials for illiterate and newly literate people must be specific to the environment for which they are intended. The materials, which will include literacy teaching texts and follow-up reading materials in Spanish and Indian vernacular languages, teachers' guides, films, filmstrips and simple visual aids, will then be distributed as models to other countries of the region, with full details of the production methods used. The Centre will also provide training for writers and illustrators from these countries, who may be sent to Patzcuaro to study the methods of low-cost local production. The budget of \$140,000 per annum available (with important contributions in services and staff from other sources) for this project dictates that it must be a modest pilot experiment, but the Director-General and the Executive Board are presenting to the Sixth session of the General Conference to be held in Paris in June 1951 a far more ambitious *Special Project* to establish a world network of six Regional Fundamental Education Centres over a period of 12 years at a cost \$20,000,000.

This Special Project is fully described in a document,¹ for presentation to the General Conference. If it is approved, efforts will be made in 1951 to obtain funds 'from outside the annual budget of Unesco'. The scheme itself is designed to begin in 1952 with the expansion of the Latin American Training and Production Centre with additional staff and money for field research, advisory missions and clearing house services as well as for the expansion of the present training and production facilities. Work would also be started in 1952 on the establishment of a second centre in another region. The plan also makes provision for meeting the acute shortage of top-level international experts in fundamental education by the setting up of an advanced study centre at Unesco headquarters in Paris.

Meanwhile the annual programme of fundamental education for 1951 continues to provide co-operation with Member States in field projects and pioneer experiments, the results of which will be circulated by the Clearing House in monographs, occasional papers and reports.

The scheme of *Associated Projects*,² originally approved by the General Conference at its Second Session in Mexico, has been developed experimentally over the last two years by the informal association of some 25 projects in 10 Member States. In 1951 up to 150 projects will be formally associated by an exchange of letters between Unesco and the Member States governments. All of these projects will receive the Clearing House services of information and advice, while Unesco will send into a small number of them experts or field-teams, to co-operate with the national and local authorities in field experiments designed to explore new methods or to test out the application of those already known for new purposes.

Unesco's associated project scheme will be greatly enriched if it can draw

1. Numbered 6C/PRG/3.

2. A document entitled 'Associated Projects & Agencies' numbered Educ./81 describes the scheme and the methods of association. Available on request.

upon the concentrated knowledge of men and women in each Member State, who have real experience in fundamental education, as research field-workers or as members of government departments or non-governmental organizations. Unesco has therefore asked all its Member States to bring together such people into *National Committees* for fundamental education¹ where possible within the structure of their National Commissions for Co-operation with Unesco.

Unesco's modest and annual budget could easily be dissipated without tangible results, in sporadic assistance to its 50 Members States in the wide field of activity represented by fundamental education. The assistance given to Member States must therefore be concentrated upon certain clear cut 'activities' or 'topics' which are of international interest and in need of applied research.

Reference has already been made to the first and perhaps the most vital of these activities, *the training of teachers and leaders* for fundamental education in the Regional Centre in Mexico. Unesco's Pilot Project in Haiti (which will shortly be transferred to the Technical Assistance budget as a joint activity of the United Nations and Specialized Agencies) will also establish an experimental training centre for Haitian field workers. An important project for the training of rural leaders, set up by the Government of India at Janata, near Delhi, has also been developed, as an associated project of Unesco, with the advice of Dr. Spencer Hatch, Unesco's consultant in rural education.

Another important activity in which Unesco is interested is the *production of low cost literacy teaching and reading materials*, adapted to the needs and resources of under-developed communities. Parallel with the work of the Mexico Centre in this field, a Unesco team of four experts is operating in Egypt and Iraq, with seven national experts from these countries and with representatives of WHO and FAO. The model materials which they are producing in a group of villages north of Cairo, and in a second experimental area in Iraq, will be submitted to a seminar of educators of the Middle East region in Iran in November 1951. Other production experiments are being carried out or will be started in 1951 with Unesco's advice and assistance in India, Haiti and Jamaica.

Many attempts have been made in various countries to adapt the powerful media of film and radio, as well as simpler audio-visual aids, such as filmstrips and posters, to fundamental education. Some of these have shown interesting results, but more often than not they have demonstrated the incapacity of technicians to shake off their sophistication and to present new ideas in a simple idiom for an illiterate or newly literate audience. Much remains to be done in this field, specially by linking production with the continuous testing of audience response.

Following a successful experiment in the *production of audio-visual aids* carried out in China² in 1949 and 1950, by the Chinese Mass Education Movement with the advice of Unesco's consultants, Mr. Hubbard and Mr. Norman McLaren, a number of further experiments will be sponsored by Unesco in 1951. One of the experts in the Unesco-Arab States team is co-operating with film units from the Egyptian Ministries of Education, Health and Social Affairs, and early in 1951 a Unesco radio specialist will be assigned to work with the Egyptian broadcasting authorities in improving educational radio for adults in rural areas. A second Unesco team will be sent to India in the

1. A document entitled 'National Committees' numbered Educ./82 describes the organization and purpose of these committees. Available on request.

1. For a detailed study see Monographs on Fundamental Education No. 6: *The Healthy Village*. Unesco.

course of the year to work with the government films units in the production of educational films and filmstrips. This important matter of the adaptation of audio-visual aids to the education of illiterate communities will also be an essential element in the production programme of the Mexico Centre.

In experiments on film and radio the Division of Fundamental Education works in close contact with the Department of Mass Communications. So also in other fields of interest—the study of the role of libraries and museums in fundamental education, the application of anthropology and sociology and the place of the folklore and popular arts in fundamental education—there is an active relationship with the Department of Social Sciences and the Libraries and Museums Divisions, and joint experiments are being planned with them for Haiti, Mexico and India. Another method of co-operation has been adopted by Unesco's Reconstruction Department, which obtains equipment and materials from sources outside Unesco and consigns them to Associated Projects where they can contribute to the local education programme.

The last and perhaps most important topic upon which interest will be focused is *the use of vernacular and second languages in fundamental education*. In 1951 Unesco is undertaking extensive studies on practices current in all parts of the world in choosing, codifying and using vernacular languages for literacy teaching and in the teaching of second languages from the vernacular. These studies will be submitted to a conference of experts in Paris in November. It is hoped this will lead to the production in 1952 of more authoritative publications on this difficult and complex subject.

In planning and carrying through fundamental education there is always close co-operation between Unesco and the UN and other Specialized Agencies and the programme of Unesco provides for *joint working parties* with these organizations. Important as these administrative measures are, more important still is the enrichment of Unesco's fundamental education programme by the advice and experience of experts, educators and field workers all over the world. Unesco, with its Clearing House and Division of Fundamental Education which together handle this exchange of information and advice, must not and cannot be a one-way agency for distributing publications and sending out experts. It must be constantly provisioned with new inspiration in order to extend its knowledge of the progress and practice of fundamental education. This short account of Unesco's programme closes, therefore, with an appeal to all who read it, that if they know of projects, agencies, or persons in any country of the world whose experience in fundamental education, and especially in the 'activities' and 'topics' outlined above, would be of interest to Unesco and are not so far known, that they should communicate information about them, briefly or fully, to:

The Education Clearing House, Unesco, 19 avenue Kléber, Paris.

A DEFINITION OF FUNDAMENTAL EDUCATION

presented to an Inter-Secretariat Working Party
of the United Nations and Specialized Agencies.

Paris, 16-17 November 1950

(re-print of document Unesco/ED/94 of 14 February 1951)

1. *Definition*

'Fundamental Education' is that kind of minimum and general education which aims to help children and adults who do not have the advantages of formal education, to understand the problems of their immediate environment and their rights and duties as citizens and individuals, and to participate more effectively in the economic and social progress of their community.

It is *fundamental* in the sense that it gives the minimum knowledge and skills which are an essential condition for attaining an adequate standard of living. It is a prerequisite to the full effectiveness of work on health, agriculture and similar skilled services. It is *general* in the sense that this knowledge and these skills are not imparted for their own sake only. It uses active methods, it focuses interests on practical problems in the environment, and in this way it seeks to develop both individual and social life.

It is *concerned* with children for whom there is no adequate system of primary schooling and with adults deprived of educational opportunity; it utilizes all suitable media for their development through individual effort and through community life.

2. *The 'Geographical' Scope of Fundamental Education*

Fundamental Education is primarily concerned with those areas of the world (which are to be found to a greater or lesser extent in every continent and in most countries) where the vicious circle of illiteracy, disease and poverty limits the possibility of human progress—namely the economically under-developed areas.

3. *The Place of Fundamental Education in relation to Technical Services*

Fundamental Education does not itself provide organized technical services, although it can help to supply the basis for their development. It may often depend on such services to provide appropriate training to its personnel and to give technical information and advice. Wherever the special nature or difficulty of a local problem requires direct technical aid, arrangements shall be made to obtain the necessary experts. There should be provision for free interchange between Fundamental Education and all relevant technical services.

4. *The Place of Fundamental Education within an Education System*

(a) *Relationship with Primary Schooling*

A well organized primary school system, where all children can and do go to school, is the logical sequel of fundamental education. Until this is achieved, the educational welfare of children of the primary school age falls within the scope of fundamental education.

(b) *Relationship with Secondary and Higher Education*

A fundamental education movement is often dependent for its teachers and leaders upon the secondary schools and universities, sometimes outside the area of its operations. University extension activities may play a vital part in such a movement. In turn fundamental education lays the foundation for secondary and higher education. Secondary and higher education are therefore related to fundamental education but not included in it.

(c) *Relationship with Technical and Vocational Training*

Fundamental Education seeks to bring to the service of the individual and the community the essential understanding and rudimentary skills which are basic to a full and effective life in a particular environment. Fundamental Education would not include an organized, programme of vocational and technical training. It may, however, depend upon such a programme for the formation of its specialized field workers and leaders.

Fundamental Education is often, in fact, an essential first step to vocational and technical training. It fosters the assimilation of simple techniques and ideas which will assist in the adoption of better practices in agricultural production, in the use of natural resources, in home life and in hygiene and sanitation. In rural areas it may lead to the introduction or improvement of useful crafts and small industries; in industrial areas it may provide a basis for acceptance of improved methods of production.

(d) *Relationship with 'Adult Education'*

A large part of Fundamental Education is 'Adult Education' in the strict sense that it is concerned with the education of adults. It is, however, in one direction narrower than adult education, since it stops short of the 'further education' of adults beyond the essential minimum of knowledge and skill required as a foundation for effective living and in another direction wider in that it includes in certain circumstances [see section (a) above] the education of children.

LITERACY PRIMERS

by J. C. NOTEBAART

In a previous issue of Fundamental Education (Vol. 2, No. 1) the author described the programme of adult and literacy education developed in Indonesia. Here he analyses the Indonesian literacy primer in some detail and invites further comment from readers working on the same problem.

IN the *Fundamental Education: quarterly bulletin* issue of July, 1949 (Vol. I, No. 3) an attempt was made to begin the comparative study of literacy primers, and it was rightly observed that such a study is only possible if one takes into account the living conditions of the illiterate people who are using the primer.

Since it nevertheless seems to be Unesco's purpose to open discussion of this topic, I should like to provide further data, in a concise form, about one of the six primers¹ which were selected for comment. I take for this purpose the primer I developed—*Indonesia membatja dan menulis*: ('Indonesia read and write')—one page of which was reproduced in the issue of the Bulletin referred to.

A discussion may well be introduced by a number of main topics, as follows:

Purpose

The purpose of every literacy primer should be to teach the illiterate person to read and write in the shortest possible time.

The main hindrances and difficulties in the way will be removed if the primer is designed as a part of an interlocking literacy campaign, with specially devised follow-up work. Where no graded follow-up reading is available, i.e. where the primer has to lead on directly to existing literature, this will naturally influence the plan of the primer.

Indonesia membatja dan menulis is part of an interlocking system which comprises the one primer, some 500 follow-up booklets, three newspapers and a number of correspondence courses.

Age

The age of illiterates who are to learn reading and writing through the primer also has a bearing on its structure and content.

If we are designing a primer for adults the book will have to stand on the level of adult mental development where far more may be demanded of the ability to combine and associate than is the case with younger people. Content should relate to adult interests; and we can use the more extensive experience and vocabulary of the adult.

Indonesia membatja dan menulis was designed for adults, that is to say in this country, people over 16 years of age.

Occupation or Livelihood

Another important factor to take into account in designing the primer is the occupation of the illiterates; this is related very closely to the environment

1. Referring here to pp. 23-29 of the July, 1949 *Fundamental Education*, where pages from six well-known primers were reproduced.

—the more so the more primitive conditions are— and it raises also a number of factors of a different kind.

Most probably some 90 per cent of the illiterate group are farmers; their richness of language thus chiefly operates in this environment.

Other factors concern hands and eyes. Preliminary investigations here have shown that these people's eyes converge with difficulty. The problem is met as far as possible in *Indonesia membatja dan menulis* and in the follow-up booklets by the use of a specific kind and size of print. The primer thus begins with the so-called Nobel Antique type, of 30 point. After Lesson Five the size is reduced to 24 point. The later follow-up booklets introduce other kinds of type, while the size is progressively reduced. By the end of the follow-up series we thus arrive at usual kinds and sizes of type.

We also have to reckon—especially in the case of beginners—with reading by the poor home lighting which still consists generally of a flickering, smoky oil lamp. On this account it is worth recommending that the primer be printed on good white paper with a matt surface.

Since the farmers' hands are accustomed to heavy work, we should not expect them to produce cursive writing easily—apart from the fact that cursive script means an added difficulty. In *Indonesia membatja dan menulis* we start to teach writing from Lesson Eleven onwards by means of print script; during follow-up courses the booklets provide an opportunity for learning to read cursive script.

Farmers do not have the fixed hours of work that, for example, factory workers have. Their work is determined largely by the season. Farmers here have considerable free time—but not at regular hours. As a result the literacy classes, which have necessarily to follow a set timetable, quite normally reflect 50 per cent of absentees.

To meet this problem I developed the system we term, 'Doctor-Literacy.' During the lesson have the illiterates come in turn to the instructor (the doctor). He 'examines' the student for some minutes on the *c* and *d* parts of the previous lesson; if this is satisfactory, he then devotes a few minutes to the *a*, *b* and *d* sections of the new lesson. The *c* section, which consists of exercises in syllables already known, can be worked over by the student on his own at home.

The illiterates are thus enabled to settle for themselves the most suitable time for attending class, and the demand made on their time by the single lesson is extremely light.

Language Structure

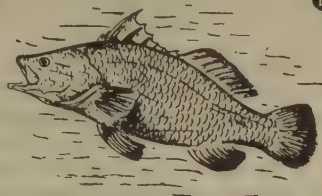
The structure of a language is one of the most important factors in deciding on teaching methods.

The language of *Indonesia membatja dan menulis*, Indonesian, contains in addition to open syllables, a large number of closed syllables. The so-called key word method cannot therefore be used as a basis. The starting point of our primer is a pictorial method. By means of an illustration, understood throughout the Indonesian language area, we come to the 'word of impact' (*trefwoord*). From the two syllables of this word we derive various combinations by ringing the changes on the vowels.

Each 'word of impact' after the first lesson contains only one new syllable. The syllables are not analysed into their elements.

In order to speed up the course, the first lesson contains words that have no meaning; the attention of students is directed particularly to substitution in open syllables of the vowels occurring in Indonesian. From Lesson Two

a



ka kap

b

ka kap
ge lap
tju kup
tu tup
ke rap
a sap
se njap

c

si ka rim ne la jan.
ia ting gal di te pi mu a ra su ngai.
pa gi pa gi ia ba ngun
dengan pera hu nja ia men ang kap i kan.
pe tang ha ri ba ru ia pu lang
mem ba wa ru pa ru pa i kan.
i kan ka kap, ban deng, tju mi tju mi,
u dang dan se ba gai nja.
me nang kap i kan i tu
pen tja ha ri an si ka rim.

d

(tu lis ka ta ha lam an i ni)

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onwards meaningful words are introduced progressively, and by Lesson Seven all words have meaning.

From Lesson Four we introduce the reading of simple sentences; and after the twelfth lesson the *c* section consists entirely of sentences woven together as far as possible in a simple narrative.

On completing Lesson 34 students are able to read and write.

No arithmetic is included in the primer, since in the full system (of primer plus follow-up work) we develop a special course for that subject.

Word Frequency

It is naturally desirable that research on the word frequency of the language spoken by the people should underly both a primer and the whole follow-up system. A number of circumstances prevented us from carrying this out in the strict sense; but with a word-list compiled empirically, some 775 words were introduced in *Indonesia membatja dan menulis*.

Instructors

A last factor to be taken into account in constructing a primer is whether the teaching will be done by an expert or not.

The principle used in our case was this: that a literacy campaign will succeed most rapidly if every person able to read and write fluently is used as an instructor. With such people in mind, we also prepared a teachers' manual to describe the method of using the primer lesson by lesson.

NOTES AND RECORDS

REGIONAL FUNDAMENTAL EDUCATION TRAINING AND PRODUCTION CENTRE FOR LATIN AMERICA.

This Centre, sponsored jointly by the Mexican Government, Unesco and the Organization of American States opened officially on 14 April at Patzcuaro, Michoacan (Mexico).

The purpose of the Centre is to assist Latin American countries to meet two urgent needs in fundamental education: the training of workers and specialists in fundamental education and the preparation of suitable material. Member States in Latin America will each send two or three teachers, with previous working experience in fundamental education, to the centre where they will receive a 10-month integrated training in economic, social and cultural development, health and hygiene, home improvement and recreation. Practical work will be carried out in the extension field around the Centre.

The second aspect of the work of the Centre aims at the production of low-cost fundamental education material, scientifically sound and adapted to the needs and cultural level of the community. The preparation, use and evaluation of such material will form a part of the training programme.

The Centre will have a well equipped library which will serve as a clearing house of technical information on fundamental education for Latin America.

YOUTH MOVEMENTS AND FUNDAMENTAL EDUCATION.

A note from the Secretary-General, World Assembly of Youth, 15 rue d'Arlon, Brussels, reads as follows:

If we term 'fundamental education' that process of training which enables all men and women to control their own lives in the spheres of the mind and of skills, of language and of health, and to take their places in a group as workers or farmers, as members of a family, a community, a nation—then youth movements may be regarded as excellent means for fundamental education.

A good example of this is provided by the work of the Council of the World Assembly of Youth, held at Istanbul in August last.

WAY is an original organization in that it is composed of co-operating committees within different countries, which bring together youth movements of every tendency; its field of action is thus the area common to all these organizations, and reveals accurately the present pattern of youth and its deeper preoccupations.

The subject chosen for the meeting of the Council was democratic education. The main themes discussed were: illiteracy campaigns—their implications for State legislation, budgets and teachers; removal of barriers to education caused by race or sex, as well as the improvement of living conditions for pupils and students, workers' legislation fixing both a minimum age for starting work and a genuine basic education for the apprentice manual or intellectual worker.

These familiar topics are surprising and novel only when they appear on the agenda of a youth meeting. Perhaps a sign of the times... but they represent a deep sense of mission.

One characteristic of youth movements is their voluntary nature; the young

person takes part by a free and deliberate choice, seeking in a more or less confused way to find self-fulfilment and to belong to a community. This freedom of choice is an indispensable starting point and incentive in all education.

Whatever the movements may be—political, religious, neutral—they all aim at moral, social and physical training of the young. While particular aspects may be emphasized, all use similar methods—the open air, physical development, manual skills, free discussion—which give their members the essential elements of education.

The central fact about youth movements is that the young people form a group where they occupy themselves in activities of their own choosing; whether the members be children or adolescents, each one is given some responsibility both in the interior working of the group and in its extension outward. Thus accustomed to shouldering responsibility within a group, young people quite naturally find their places as men and women in adult life, and benefit from having previously shared a society and held responsibilities in keeping with their age and experience.

Youth movements have consciously accepted this mission of giving young people a full 'fundamental education', individual and social. The second part of the discussion at Istanbul was devoted to the measures needed for expanding the organizations, so that still more young people should be enabled to share this democratic education.

Results will depend on the movements themselves, but also on society as a whole. No youth community is self-sufficient, and the members have to be integrated into society. For this reason the WAY Council turns constantly to national and international institutions. As agencies of prime importance in fundamental education, the youth movements consider themselves entitled to ask for active help and support from the whole of society.

MIDDLE EAST PROJECT

The Unesco-WHO-Arab States team, led by Mr. H. B. Allen, after having worked for three months in the Sindibis area in Egypt, moved on to Iraq in the middle of March.

AFGHANISTAN

Mr. Edmond Sidet, a French educator, has recently been sent by Unesco at the request of the Afghan Government to advise on the re-organization of the educational system in this country. His last report indicates that he is discussing a practical plan with the appropriate authorities.

BELGIAN CONGO

The Secretariat-General of the Congo set up in 1947 an office for cinema and photography within the Department of Information. This office has been responsible for obtaining and circulating films; as a result of its work it has actively studied the problems met, undertaken African film production and arranged distribution through mobile units. An interesting survey has recently been written by the head of the office, Mr. L. van Bever, under the title *Le Cinéma pour Africains* (Brussels, G. van Campenhout, 1950, No. 14 in series "Cahiers Belges et Congolais"). The author discusses both the theory of the work and the practical results so far achieved. The wealth of detailed information he gives will be of direct assistance to others interested in this field.

The vigorous growth of educational cinema in the Congo is shown by the following figures:

1946: 238 sessions organized in 29 centres, with about 350,000 spectators.

1949: 1560 sessions in 486 centres, with some 1,850,000 spectators.

BOLIVIA

The Unesco educational mission, composed of Prof. Mario Aguilera Dorantes of Mexico and Prof. Viriato Camacho, to advise the Government on the launching of a national literacy campaign has completed its assignment and submitted its reports.

BURMA

Educational Mission. A three-man mission composed of Mr. Richard M. Tisinger (U.S.A.), expert in educational administration and finance, Dr. Francis T. Fairey (Canada) secondary and vocational education expert and Professor Luciano Hernandez Cabrera (Mexico) specialist in fundamental education, was sent to Burma toward the end of 1950. The mission is both exploratory and advisory. In the first capacity, the members are taking three months to make a survey of existing conditions and needs. Following this, they will submit their recommendations. The final phase of their work will be to help the Government to implement the recommendations once they have been accepted. The Unesco mission is working in close collaboration with a team of three experts assigned by the Burmese Ministry of Education, and will stay in Burma for a year.

INDIA

A National Seminar on the organization and techniques for liquidating illiteracy was held at Jabalpur, Madhya Pradesh State, from 15 December to 26 December 1950. This, the first National Seminar in the country, was organized in pursuance of a recommendation of the Unesco Seminar held at Mysore in 1949. Some 63 delegates and 17 observers attended from all parts of the Indian Union. A brief report of the meeting, the main topics discussed and resolutions adopted, will be found in *Social Education* Vol. 2, No 7 (January 1, 1951) issued by the Indian Adult Education Association, 30 Faiz Bazar, Delhi.

The Janata College Centre is being established by the Indian Ministry of Education in co-operation with the Delhi State Department of Education in a rural area just outside New Delhi. The purpose is to train village leaders who will return to their own villages to do adult fundamental education work. An extension area surrounding the Centre serves as a laboratory for practical training.

It is planned to begin fundamental education in the villages nearest to the Centre, extending gradually to the whole of Delhi State. Before starting work in a village, a careful survey will be made and the educational programme will be developed on the basis of the needs discovered. The person in charge of the programme will receive help from the College Centre, where he probably has attended a training course.

A production programme of follow-up literature for newly-literates is being developed at the Centre with the assistance of a Unesco expert.

Assisting in the development of this project was Dr. Spencer D. Hatch who was sent to India last October by Unesco. Dr. Hatch helped in working out the plans, but on having to leave on an assignment to Ceylon he was replaced

by his wife, Dr. Emily Hatch, who has been his constant collaborator and is also a rural educator in her own right. Their daughter, Miss Nancy Hatch, is working in the project on a voluntary basis. Miss Ella W. Griffin, literature specialist of the U. S. Office of Education, went there toward the end of 1950 to help in the literature production programme.

The *Malnad (Mysore) Rural Malaria Control Demonstration Team*, launched as a project in 1949 by WHO in co-operation with UNICEF and the local government, has had a great success. In addition to demonstrating the disinfection of premises through the application of DDT, a recent report states:

'A feature of the activities of this team is, however, the importance given to health education. Mrs. Paul Bierstein has been organizing a very complete network of health teaching centres. The foreign nurse assisted by two local public health nurses and a dozen midwives has been visiting houses in every village and taking care of the children, distributing some drugs as first aid and instituting in a number of villages maternal and child health clinics. Pre-natal and post-natal care are given by the midwives. The most important advance, however, is the organization of health centres in all the schools of the region in which lectures and practical teaching of health education are delivered regularly with very simple but efficient methods—baths are arranged and the children are taught the main rules of personal health protection.

By this double action—on the housekeepers and the mothers, and on the children in the schools—it is hoped to prepare a psychological background which will enable the malaria protection to be more and more efficient'.

INDONESIA

An extremely interesting venture is in progress to solve the problem of a chronic shortage of teachers. The outline given below is taken from a note from the Managing Director, Balai Kursus Tertulis Pendidikan Guru, Djl. Dokter Tjipto 9, Bandung.

After the realization of the Unitary State on 17 August 1950, the training of teachers for both primary and secondary schools in Indonesia was entrusted to the 'Balai Kursus Tertulis Pendidikan Guru' at Bandung. (Institution for the training of future teachers by means of correspondence-courses). The Balai Kursus bases its method on a plan, studied in the first half of 1950, designed by the 'Perhimpunan Pendidikan Indonesia' (Indonesian Pedagogical Society) in co-operation with the then Department of Education at Jogja.

The Institution starts from the following facts:

1. About two and a half million pupils in Indonesia attend primary schools with a six-years' course. This number, considering the present population, might well amount to 12 million.
2. An annual increase of the number of pupils by half a million would require extra training for the teaching profession of at least 10,000 candidates yearly, and this only for primary education.
3. Such training cannot be supplied by the existent teachers' seminars. They are scarcely able to remedy to some extent the falling off of the present staffs.
4. Extension of the training-apparatus, by opening up new seminaries and training-colleges on a large scale would be impossible on account of the lack of teaching staffs, and because of the extremely high expenses which such a wholesale training would involve.
5. Making up the enormous arrears is only possible by the organization of a central 'mass-training on paper' for the whole of Indonesia. Lessons, which must be as clear and thorough as possible, will have to be given at a central institution, and arrangements are to be made to remove as far as possible the drawbacks of a written training.

6. The pupils are to study for one year in groups, under the guidance of practised teachers from elementary schools; after that they will have to teach in class as candidate-schoolmasters and study in clubs for five years more, thus receiving a full six-years' training course.

Present State of Affairs

1. In each *kabupaten* (village) one or two studying-centres of about 300 in all, have been operating for a few months, each accommodating 40 candidates. These pupils have had a six-years' primary elementary education.

2. In certain *kabupatens*, courses for pupils with a three-years' secondary education have also been formed.

3. At the Balai Kursus written courses for the first and the fourth class of a teacher training course have already been drawn up by 16 tutors of both Indonesian and European nationalities. The medium of instruction is Bahasa Indonesia (Malay). Of the first series 20,000 copies are printed, of the second series 6,000.

4. Supplementary lessons in the principal *daerah* (regional) languages are sent out once every month.

5. Every lesson is reviewed in an editorial meeting of five or six tutors and translators, and tested for its pedagogical, methodical and didactic merits, as well as for those particular elements which are essential for a written course and for this region of the country.

6. A start has been made in the setting up of a library for the use of tutors.

7. Some travelling teachers, 'field-workers' (*guru penasehat*), in the employ of the Balai Kursus, will visit the study centres, give advice and a few lessons, and inform the Balai Kursus of the general state of affairs upon their return.

Plan for the Near Future

1. Increase of the staff of field-workers on such a scale as to enable each *guru penasehat* to cover a district of about 12-16 centres (400 candidates), which will be visited every two months for two or three days.

2. Providing a means of conveyance (jeep) for each *guru penasehat*, together with a standard-outfit, to include a linguaphone with gramophone records (English pronunciation), globe, proper magnifying glass (for botanical purposes), picture-projector, pictures and picture-atlases, maps, magazines, reading-matter, and propaganda.

3. These field-workers are to take a short training at the Balai Kursus and to return there regularly to exchange their experiences, to give information to the tutors and to receive further instruction.

4. This mass-training is to be converted into a national plan, for a period of perhaps 20 years, in order to break the deadlock in education.

5. Design for a written course for future secondary-school teachers.

6. Transforming the newly-formed library into a standard-library for the use of the educational corps over the whole of Indonesia.

NEW ZEALAND

In April 1950 the Third International Conference of Correspondence Educators was held at Christchurch; the Conference *Proceedings* have been published by the New Zealand Education Department's Correspondence School (Clifton Terrace, Wellington, 264 pages, processed. No price given).

The report makes interesting reading. It consists of a series of papers which deal in a practical way—by describing the delegates' experiences—with all aspects of correspondence tuition. The vigorous government schools in New Zealand (about 5,000 enrolments) and Australia (30,000 enrolments at school level) are covered in particular detail. The two main grounds for providing 'lessons in the mailbag' are distance from a school and physical disability. To meet the needs of these students the correspondence schools have developed a wide range of courses—primary, secondary, technical, teacher training—

along with techniques for dealing with such subjects as modern languages (records and broadcasts for pronunciation drills) and sciences (small laboratory kits). Where correspondence tuition is treated as a part of the national educational system, the schools acquire a character of their own, with close pupil-teacher relationships, school magazines and a host of extra-curricula activities.

In his preface to the *Proceedings*, Dr. A. G. Butchers, the conference chairman, discusses the next meeting of the conference, scheduled for 1952: 'If I may suggest a special theme, let me propose the question, whether the preponderant illiteracy of the human race cannot to a large extent be dispelled by mass use of correspondence techniques. This is worthy of close study. That such methods are practicable I am convinced, and I hope that it will not be long before Unesco gives a lead in this important direction'.

The role of correspondence tuition in fundamental education was not treated at the New Zealand conference, although one paper was presented on the Shantan Bailie School in China, where some use was made of technical courses from New Zealand. There is no doubt that a careful study of correspondence techniques—in the widest sense—would be of value to fundamental education facing, as it does, a teacher and school shortage.

PHILIPPINES

Educational Mission. In the spring of 1949 a Unesco educational mission was sent to the Philippines at the request of the Government. The mission submitted a report, making a certain number of recommendations. Many of these were accepted by the Government, and a few were enacted as law. Unesco was then asked to send a follow-up mission to assist in the implementation of these recommendations. Accordingly, Professor Luis G. Medellin Niño, a Mexican educator, was sent in March 1951 to help the national authorities to develop a fundamental education programme patterned on the cultural missions.

THAILAND

Educational Mission. Mr. Thomas Wilson of New Zealand went to Thailand last November as the first of a two-man mission from Unesco to assist the Thai Government in launching an educational experiment in a selected area in which many of the recommendations of the first Unesco mission (1949) will be put into practice. A committee representing Unesco and Siamese authorities was formed. The committee selected Chachoengsao as the site of the experiment and prepared a plan of work which has been accepted by the Government.

Under the plan, selected primary schools will be entrusted with the experimentation of improved methods of teaching various subjects, e. g. health, social studies, arts and crafts; 'progressive schools' on the post-primary level will further be established to give practical teaching adapted to local needs. Different types of schools on the secondary level—academic, technical, vocational—will be reorganized into a single 'omnibus school' with a view to removing social stratification and broadening the curricula of academic secondary schools. In addition, the plan envisages the establishment of two technical institutes (possibly outside the area) fully equipped with the necessary machinery and facilities, the setting up of two adult education centres and, above all, the extension of teacher training facilities, both in width and depth.

The Thai Government is giving full support to the scheme. Already over one million Ticals (12.50 tcs to U.S \$1) have been allocated to the work and 10 full-time local experts assigned. The Ministry of Health is granting the service of a doctor and a nurse for the health project.

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PICTURE CREDITS

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